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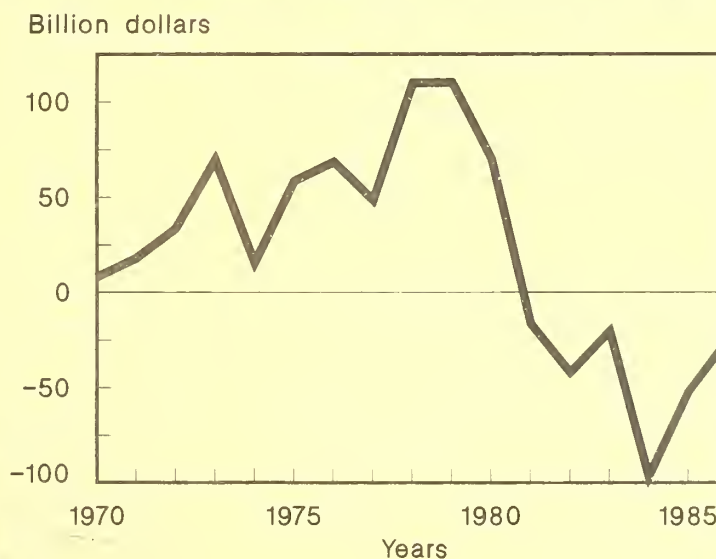
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Agricultural Finance

Outlook and Situation Report

Annual Change in Farm Equity



1985 and 1986 forecast.

Declines in farm equity
forecast to slow. . .

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Many agencies and organizations help in collecting survey data and other information contained in this report. They include the

American Bankers Association, Federal Reserve Banks, Board of Governors of the Federal Reserve System, the Farm Credit Administration, Federal Land Banks, Federal Intermediate Credit Banks, the Statistical Reporting Service, the Extension Service, the Farmers Home Administration, the Agricultural Stabilization and Conservation Service, life insurance companies, and commercial banks.

SUMMARY

The financial well-being of the U.S. farm sector continued to decline in 1985, but there are some signs the situation may stabilize in 1986. Net cash income could about match 1985's record level as higher livestock receipts, continued large Government payments, and lower production costs about offset reduced crop receipts. However, net farm income is expected to fall further, primarily due to the drop in the value of farm inventories. As a result, the severe debt repayment problems facing 10 to 12 percent of the Nation's farmers probably will persist in 1986.

There are some signs that the sector has begun to adjust to the financial stress of the last several years. Investment in expanding capacity has stopped, capital continues to leave the sector, and low commodity prices may begin to strengthen demand. The trade-weighted value of the dollar has declined steadily since March 1985 and may slip further. However, because of lags in response, farm exports are not likely to expand appreciably this year. Input use has started to decline as farmers attempt to cut costs. Also, farm debt and interest expenses have begun to shrink due to reduced purchases of land and equipment, as well as lower interest rates, thereby improving prospects for eventual gains in liquidity.

The decline in farm asset values will constrain the sector's borrowing capacity and reduce its cost structure, but it is easing the financial difficulties associated with transferring and acquiring farm assets. The declines in farmland values during 1984 and 1985 are forecast to slow in 1986, as returns to farmland are now approaching returns on similar assets elsewhere in the economy. However, the nearly \$250-billion cumulative loss in farm sector wealth since 1981 has undermined the financial security and threatened the viability of many highly indebted farmers.

The severe financial condition facing some U.S. farmers has begun to have its full effect on farm lenders. The largest share of failed and troubled commercial banks and Farm Credit System associations is

concentrated in the Corn Belt and Plains States. These regions also had only limited participation by large parts of their nonfarm economy in the Nation's 3-year economic recovery.

More than 80 percent of the Nation's farmers, who have moderate or very low debt levels relative to earning capacity, should not have difficulty finding credit. Despite the serious problems among agricultural banks, the commercial banking system remains sound, even in most rural areas. Highlights of the agricultural finance outlook are:

General Economic Conditions

- o The U.S. economy grew modestly in 1985, while inflation and interest rates continued to fall. Real GNP rose about 2.3 percent and employment about 3 percent. Real growth led to only modest gains in food demand, but lower inflation and falling interest rates helped reduce farm input costs.
- o The dollar's value declined in 1985, but remained relatively high compared with the period of explosive export growth during the 1970's. Therefore, 1985 was still a difficult year for U.S. export and import-competing industries. Partly because of this, economic expansion remained uneven, with goods-producing sectors growing more slowly than service sectors.
- o The expansion should continue through 1986, with real growth slightly higher than in 1985. Inflation should stabilize near the 1985 level, although interest rates may decline slightly. The value of the dollar should continue to fall, but not as rapidly as in 1985.

Farm Income

- o In 1985, farm income fell about a fifth from the record \$34.5 billion in 1984, and it is likely to fall further this year.
- o Higher livestock receipts and continuing high Government payments under farm

programs will bring net cash income near the record 1985 level. Thus, farmers without high debt will remain in a fairly strong liquidity position.

Assets, Debt, and Equity

- o Nominal farmland values fell an unprecedented 13 percent in 1984 and around 8 percent in 1985. The decline may be only 4 percent this year.
- o Farm debt, excluding household and CCC loans, dropped an estimated 4 percent last year, and may decline another 2 percent in 1986.
- o Overall farm sector wealth and equity continue to decline. By the end of 1986, cumulative equity losses since 1981 could exceed \$250 billion—more than a fourth of peak values.

Agricultural Lenders

- o Agricultural loan quality continued to weaken and delinquent farm loans and farm loan charge-offs increased. Commercial agricultural banks have been increasing their interest rate premiums, possibly to cover the growing loan risk. However, creditworthy farm borrowers will find an ample supply of relatively low-cost funds.

- o Agricultural banks accounted for more than one-half of the 118 commercial banks that failed in 1985.
- o The number of potentially vulnerable commercial agricultural banks rose from 96 to 302 during the past 3 years, but most of the more than 14,000 commercial banks remain financially sound.
- o Production credit associations lost \$149 million through third-quarter 1985; Federal land banks lost \$487 million. Loan charge-offs reached record highs as a growing share of Farm Credit System (FCS) loans became nonperforming.
- o The problems of agricultural banks and the Farm Credit System closely reflect those of their borrowers. A small share of all commercial banks and FCS associations are in severe difficulty.
- o Two pieces of farm legislation signed in late 1985 have major implications for the agricultural finance situation. The Food Security Act of 1985 (farm bill) encourages greater use of loan guarantees by the Farmers Home Administration. The Farm Credit Amendments Act authorizes financial assistance to the FCS, ensures increased flexibility in channeling funds, and strengthens and restructures the Farm Credit Administration.

OVERVIEW OF THE FARM ECONOMY

Aggregate Developments

The current distress in many parts of the farm economy is a consequence of the abrupt turnaround in domestic and international economic conditions that took place in the 3–4 years centering on 1981.

In the early 1970's, the dollar was devalued and then allowed to float. Thus began a near decade of declining or very low dollar values relative to other currencies. With a lower-valued dollar, U.S. agricultural products became increasingly competitive in foreign markets. Widespread crop shortfalls from 1973 through 1975 led to a drawing down of world stocks of grains and foodstuffs.

At the same time, income growth in third world and centrally planned economies was leading to increasing demands for imports of food grains, livestock feeds, and oilseeds to improve diets and aid in development. The result was a burgeoning export market for U.S. farm commodities. The volume of farm exports nearly tripled from 1970 to 1981—growing at a compound rate of over 8 percent per year.

The rate of inflation in the U.S. economy also accelerated during the decade. This stimulated spending on fixed assets such as farmland as a hedge against inflation. Such expenditures were also facilitated by banking regulations and monetary policies that kept real interest rates low, and by tax policies. Increased investments in farm capital—equipment, buildings and improvements—also greatly expanded the production capacity of U.S. agriculture.

There was a large increase in the real wealth of the farm sector. The total nominal value of farm assets more than tripled from 1970 to 1981, and the real value of farm increased by 67 percent. In response to this growing wealth, and the seemingly bright prospects for U.S. exports, use of debt financing greatly increased. With low to negative real, after-tax interest rates, total farm debt more than tripled from \$53 billion in 1970 to \$182 billion in 1981.

By the early 1980's all of the major factors that were driving the agricultural

expansion of the 1970's had reversed. The value of the dollar rose rapidly, crimping foreign demand for U.S. agriculture products. A worldwide recession and third world debt problems further reduced demand, as did increased competition from foreign countries that greatly expanded their agricultural production capacity in the late 1970's.

As a result, U.S. exports have fallen 30 million tons (20 percent), and the U.S. share of the world market has fallen 10 percentage points (25 percent) since 1981. This loss in exports, combined with slow growth in domestic demand and continued growth in agricultural productivity, has left the sector with substantially more capacity to produce than demand for its products, even at current depressed commodity price levels.

In the domestic economy, rapid inflation was halted by tight monetary policies which were coupled with expansionary fiscal policies. This combination led to unprecedentedly high real interest rates, which stimulated international flows of capital into the United States, further contributing to the strength of the dollar and weakening export demand. Financial institution deregulation added to upward pressure on real interest rates, placing additional strains on farmers who had become reliant on debt financing.

The financial pressures that surfaced for the farm economy in the early 1980's intensified in 1985, and they are likely to continue in the year ahead. This year's large supplies and weak demand have added to downward pressure on crop prices, farm incomes, and asset values. The outlook for improvements in the farm economy in 1986 depends on improved domestic and international demand for agricultural products, adjustments within the farming sector to its excess capacity problem, and Federal support programs.

On the demand side, some improvement in crop export demand may be in store as a result of lagged responses by foreign producers and consumers to declining dollar values—a decline now underway for nearly a year—and Export Enhancement Program sales. Moderate world economic growth should improve the pace of economic activity in less developed countries, adding stimulus in an important

market for U.S. farmers. However, it is unlikely that these improvements will be enough to offset fully the price-reducing effects of large global supplies for many commodities in 1986. Livestock prices have strengthened as earlier cutbacks in livestock breeding herds, responsible for record meat supplies, are now reducing marketings below 1984 levels. As meat production in 1986 continues under 1985 levels, livestock producers are likely to enjoy more positive returns.

U.S. employment and personal income will continue to grow in response to slightly higher economic growth and improved export demand prospects elsewhere in the economy. Inflation is expected to remain low and thus farm costs are likely to decline somewhat. Of major importance will be the cost of credit, which will likely be held down in this moderate growth-low inflation environment, if accommodative monetary policy is continued and Federal deficits are reduced.

The Food Security Act of 1985 provides for increased reliance on market forces to determine commodity prices and farm incomes. The supply management and demand enhancement measures contained in the act are intended to complement market forces in reducing the sector's surplus. The legislation specifies target price minimums that decline during the 5-year life of the act. Loan rates are tied to an average of past market prices with provision for discretionary reductions. Specific acreage reduction programs are required when stocks are expected to exceed certain levels. A long-range acreage reserve is targeted at improving land conservation.

Farm Sector Outlook

The farm sector's economic condition has declined absolutely and relative to other sectors of the U.S. economy since 1981. Farm income measured in real terms has declined over a quarter, and the real value of assets has declined by nearly a half, resulting in real equity losses of approximately \$250 billion. Lower income and reduced equity have forced a growing number of farmers to fall short in servicing their debt, and have hurt their ability to meet this shortfall by increased borrowing. USDA's Farm Cost and Returns Survey suggests that, in 1984, the income and

equity situation for 10 to 12 percent of all operators was serious enough to require substantial restructuring, partial or complete liquidation, or foreclosure, unless current returns improved substantially and quickly.

It is likely that aggregate measures of the sector's performance will gradually improve over the next 3 to 5 years, as agriculture makes the transition from the 1970's environment of rapid demand growth, high inflation, and low real interest rates to the 1980's slow demand growth, low inflation, and higher real interest rates. However, the gains from this transition are not likely to materialize fully until late in the decade. Conditions in 1986 point to continued deterioration in income and wealth. Financial pressures will continue to mount until sufficient resources have left the sector and/or asset prices have declined enough to bring farm sector supply and demand into closer balance.

Net farm income in 1985 is estimated at about 20 percent below the record reached in 1984, which was greatly enhanced by inventory adjustments and direct Government payments (table 1). A further decline of about 8 percent is expected in 1986, bringing the 1981-86 drop in inflation-adjusted net farm income to about one-third. Because of Government payments, last year's net cash income, a measure of sector liquidity, remained near the 1984 record of \$39.2 billion. It is projected also to remain near this in 1986.

Real net cash incomes, however, will persist in the nearly continuous decline that began in 1979. The income outlook for farming continues to be heavily supported by Government loan, storage, and income deficiency programs. Government direct program payments (farmer-owned reserve, income deficiency, and 1983-84 PIK payments) exceeded \$9 billion in 1983 and tapered off somewhat to the \$6-9 billion range in 1985-86. Additional income support is likely through loan programs administered by the Commodity Credit Corporation.

The balance sheet of the farming sector shows considerably more deterioration than receipts and incomes in the sector. After reaching a peak of over \$1 trillion in 1981, total farm assets are likely to decline by about 25 percent through 1986 (table 2). This

Table 1.--Farm sector income, 1970-86 1/

Year	Net cash		Net farm		Nonfarm		Net cash plus nonfarm	
	Nominal	Deflated	Nominal	Deflated	Nominal	Deflated	Nominal	Deflated
	Billion dollars							
1970-74	25.6	24.8	22.1	21.4	22.2	21.7	47.8	46.5
1975-79	31.5	22.1	24.9	17.5	28.0	19.7	59.5	41.8
1980	37.2	20.9	20.2	11.3	35.1	19.7	72.3	40.6
1981	35.8	18.3	29.8	15.3	36.9	18.8	72.7	37.1
1982	38.3	18.5	24.6	11.9	37.9	18.3	76.2	36.8
1983	38.3	17.8	15.0	7.0	38.8	18.0	77.1	35.8
1984	39.2	17.6	34.5	15.5	40.0	17.9	79.2	35.5
1985P	37-41	16-18	25-29	11-13	39-43	17-19	76-84	33-37
1986F	37-41	14-17	22-26	8-10	40-44	17-19	77-85	33-37

1/ Nominal deflated to 1972 dollars. P = preliminary. F = forecast.

Table 2.--Balance sheet of the farming sector, excluding operator households, December 31, 1981-86

Item	1981	1982	1983	1984	1985P	1986F
	Billion dollars					
Assets:	1005.2	977.8	956.5	856.1	803.5	777.7
Real estate	780.2	745.6	736.1	639.6	588.4	564.9
Non-real estate	225.0	232.2	220.4	216.5	215.2	212.8
Liabilities:	189.0	203.7	202.5	198.9	198.6	197.3
Real estate	97.3	101.2	103.7	102.9	98.7	95.8
Non-real estate	91.7	102.4	98.8	96.0	99.9	101.5
Equity	816.3	774.2	754.0	657.2	605.0	580.4

P= preliminary. F = forecast.

decline is due mainly to a projected 1981-86 drop in real estate values of nearly 30 percent. The decline in farm real estate values in 1986 is likely to be less than the 13 percent and estimated 8 percent declines in 1984 and 1985, respectively. With only slight decreases in farm debt, farm equity is forecast to have fallen by about \$235 billion since 1981.

The decline in equity has been concentrated in the Midwest and Plains States, and until this past year was largely paper losses from inflationary gains of the late 1970's. Now, however, the cumulative losses in equity for many farmers have caused debt outstanding to approach or exceed the collateral value of the land, causing technical insolvency for the owner and potentially large losses for lenders.

While current asset owners are experiencing large capital losses due to the decline in land values, income returns to assets and farm equity may now be returning to historic levels for the farming sector (table 3). Returns to assets and equity in 1984 showed large increases resulting from the 13-percent decline in asset values. Since then income returns have largely stabilized, although negative capital gains will keep total returns low. However, sector average returns are still below the real rate of interest and will likely remain so in the near future. Consequently, the price of farm assets is likely to slide further. How much further is problematic.

In some regional land markets, land values are now low enough that income returns closely approximate the real rate of interest,

Table 3.--Returns to assets and equity 1/

Item	Year									
	1960	1970	1975	1980	1981	1982	1983	1984	1985P	1986F
	Percent									
Returns to assets from:										
Income	3.1	3.9	4.7	2.4	3.4	3.2	2.4	4.8	4.4	3.9
Capital gains	0.1	-0.2	7.4	.4	-7.3	-5.7	-3.0	-14.1	-6.5	-2.0
Total	3.2	3.7	12.1	2.8	-3.9	-2.5	-0.6	-9.3	-2.1	1.9
Returns to equity from:										
Income	2.7	3.5	4.9	1.1	1.8	1.3	0.2	2.8	2.8	2.0
Capital gains	.2	-.3	10.3	.5	-8.8	-6.9	-3.8	-16.1	-8.5	-2.7
Total	2.9	3.2	15.2	1.6	-7.0	-5.5	-3.5	-13.3	-5.7	-.7

1/ Excluding farm households. P = preliminary. F = forecast.

indicating that land values should stabilize. At the same time, in many of these areas there are concentrations of farm operators under financial stress, lenders who must sell land acquired through foreclosure in order to maintain liquidity, and large amounts of land potentially for sale. These factors could continue to depress land values.

Recent changes in the economic indicators of sector performance reflect structural change in the farm economy. Farm production expenses, which grew by 4.6 percent in real terms annually during the 1970's, are now declining. Farm debt, which more than tripled during the 1970's, is now falling, although very slowly. With real interest rates high but nominal rates declining or stable, interest expenses (which were the fastest growing farm expense in the 1970's, showing a five-fold increase) have begun to decline. A similar pattern exists for yield-enhancing fertilizers and pesticides.

The marked decline in asset values in the 1980's, after three-fold growth in the 1970's, has constrained the borrowing capacity of the sector, thereby reducing farmers' ability to finance expansion and in some cases current operations. Investment in farm buildings, machinery, and other equipment tripled during the 1970's but has since declined by over 25 percent. These changes reflect a significant reduction in the cost structure of the sector.

Measures that retard the adjustment toward a lower cost structure and lower asset values slow the restructuring of asset ownership, and delaying the outflow of capital will also delay the time when production

capacity and resource returns become competitive again. Some troubled farm operators and owners may be able to restructure financially, acquire alternative financing including nonfarm equity, and make other changes in operations to achieve financial stability and growth by the latter part of the decade.

However, those operators who are the most highly indebted, with farm equity or off-farm income insufficient to provide adequate family income, will likely have left farming before the end of the decade. Many of them appear to be in such a weak financial position they are not likely to be saved by the modest sectorwide improvements expected in the near term. As discussed in the section following, financial stress is most pronounced among commercial-scale "family" farms, whose departure will leave ownership and control of farming more concentrated than it is now.

Outlook for Farm Firms

The financial situation and outlook for farm firms depend on their debt load and cash flow situation. The most recent summary of these indicators is for January 1, 1985. At that time, over 80 percent of farms had debt-asset ratios of less than .4, indicating adequate solvency (table 4). While nearly 40 percent of these farms also had negative cash flows, that situation was most prevalent among smaller farms that do not owe a large fraction of outstanding farm debt, and for which survival does not appear in doubt.

Table 4.—Farm and farm operator debt by debt-asset ratio, cash-flow status, and size of farm, January 1985

Cash-flow status and farm size	Debt-asset ratio			Total, all farms
	Less than .40	.40-1.00	Over 1.00	
Farms with positive cash-flows				
Percent of farms				
All sizes	43.3	5.5	0.8	49.6
Over \$500,000	0.8	0.2	0.1	
\$40,000 - \$500,000	16.7	3.3	0.5	
Less than \$40,000	25.8	2.0	0.2	
Percent of debt				
All sizes	19.7	14.1	2.4	36.2
Over \$500,000	3.1	3.4	0.7	
\$40,000 - \$500,000	13.2	9.2	1.3	
Less than \$40,000	3.4	1.5	0.4	
Farms with negative cash flows				
Percent of farms				
All sizes	37.8	10.4	2.2	50.4
Over \$500,000	0.4	0.3	0.1	
\$40,000 - \$500,000	8.4	6.0	1.0	
Less than \$40,000	29.0	4.1	1.1	
Percent of debt				
All sizes	18.4	34.7	10.7	63.8
Over \$500,000	2.2	4.6	3.0	
\$40,000 - \$500,000	11.5	25.1	5.9	
Less than \$40,000	4.7	5.0	1.8	
Total, all farms				
Percent of farms	81.1	15.9	3.0	100.0 ^{1/}
Percent of debt	38.1	48.8	13.1	100.0 ^{2/}

^{1/} Based on the 1984 Farm Costs and Returns Survey estimate of 1.694 million farms.

^{2/} Farm operator debt for farm purposes based on the 1984 Farm Costs and Returns Survey estimate of \$120.2 billion. See appendix 2.

On the other hand, two-thirds of the farms with debt-asset ratios greater than .4 were experiencing negative net cash flows. Much of the difficulty centered on commercial-scale "family" farms with annual gross sales between \$40,000 and \$500,000. These farms make up only 7 percent of the survey's 1.7 million farms, but owe 31 percent of the \$120.2 billion in operator debt for farm purposes reported in the survey. The viability of many of these operators is highly questionable. Roughly 3 percent of farms, accounting for 13 percent of farm debt, were technically insolvent, but one-quarter of them had positive cash flows.

Nearly all types of crop and livestock farms show financial stress and in roughly the same proportion—10–15 percent. One notable exception is dairy farms, about one-quarter of which are in financial difficulty. Recent declines in farm milk prices are creating adjustment problems for highly leveraged dairy farmers, especially owners of small operations.

Grain farms also show an above-average incidence of financial stress. They have suffered large land value declines and lost a portion of the export markets on which they are highly dependent. The regions

experiencing the highest degree of financial stress are the Lake States, the Northern Plains, and the Corn Belt. In the Corn Belt and Northern Plains the decline in land values has been most severe, bringing more farms into high debt-asset ratio categories. In addition, these areas are strongly dependent on cash grain farming, and hence have been especially hard hit by declines in commodity prices associated with the strong dollar and weakening international markets for grains and oilseeds.

Based on bankers' opinions reported in the American Bankers Association midyear Farm Credit Survey, it appears that these patterns of farm stress continued unabated in 1985.

The outlook for farm firms in 1986 will depend primarily on product prices. Prices for crops are going to be generally below 1985 because of large stocks and relatively weak exports. Thus, individual farm financial characteristics and the implementation of the 1985 farm bill will play a major role in the success or failure of many crop farms. Livestock prices, especially for cattle and hogs, are likely to strengthen because earlier cutbacks in breeding are now reducing marketings below 1984. Returns to livestock producers may improve as 1986 proceeds, providing some relief to producers who generally have been in financial stress for several years.

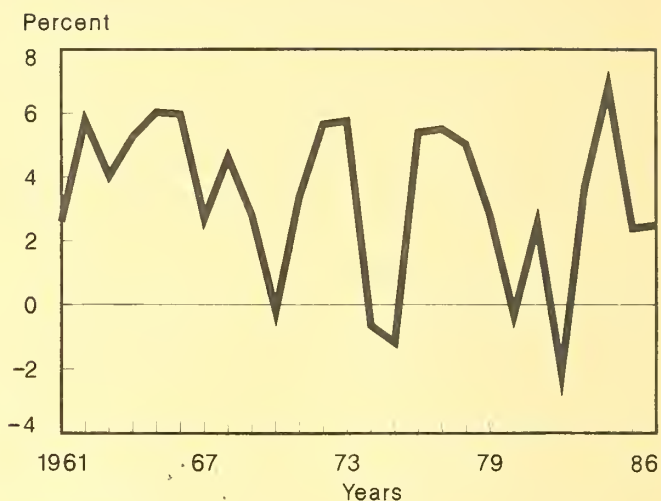
GENERAL ECONOMIC CONDITIONS

1985 in Review

The U.S. economy grew more slowly in 1985 than in 1984, but by the end of the year the expansion had lasted for 37 months, making it the second longest peacetime expansion in the post-World War II era. Real gross national product (GNP) grew about 2.3 percent in 1985, compared with 6.6 percent in 1984. The overall growth rate masked the unevenness of the expansion, however. In general, goods-producing industries grew only slightly or not at all, while services and service-related industries grew more rapidly.

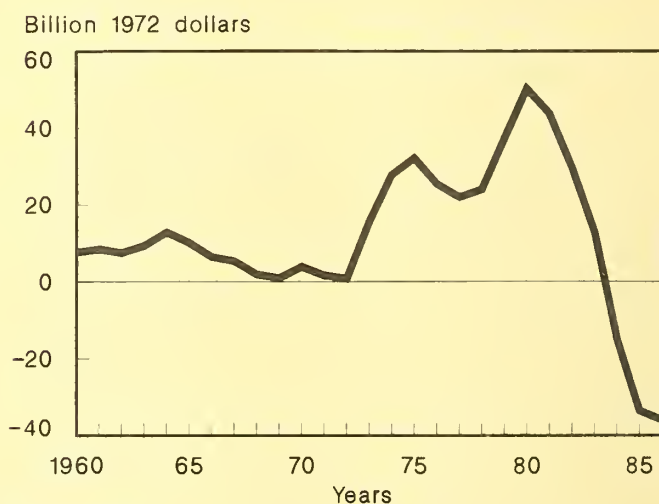
The 1985 U.S. economy can be characterized as one with strong demand but weak production. The strong demand for goods and services was met not by current

Figure 1
Real GNP Growth



1986 projected.

Figure 2
Real Net Exports



1986 projected.

domestic production, but by buying foreign goods and reducing the rate of inventory accumulation. In 1972 dollars, imports rose by about \$11 billion, so that the U.S. real net export deficit doubled from 1984's \$15 billion. Real inventory declined by about \$13 billion. Consumer expenditures, however, increased by about 4 percent, while overall investment activity (other than inventory change) rose about 5 percent.

Consumer spending is usually driven by three factors: increases in personal income, a willingness to incur debt, and a willingness to

reduce savings to make purchases. Real disposable income grew less than 2 percent in 1985, in contrast to the near 7-percent growth in 1984. Expenditures on nondurables, about half of which are expenditures on food, also grew less than 2 percent in real terms. Expenditures on services and durables rose more quickly, at about 4 and 8 percent, respectively. Most of the spending on durables was financed by a reduction in personal savings and by the accumulation of debt. The personal savings rate for the year averaged near 4.8 percent, down from 6.5 percent in 1984. Consumer indebtedness as a percentage of disposable income reached an alltime high of 18.6 in 1985. For agriculture, the implications of this consumer spending pattern are clear: lackluster domestic demand for farm products.

Investment spending (other than inventory change) grew by about 5 percent in 1985, as lower mortgage interest rates increased residential investment and nonresidential investment responded to slightly higher profits and lower interest rates.

Lackluster domestic demand for farm products could have been offset by strong foreign demand. Unfortunately, foreign trade remained a problem in 1985. The value of the dollar (on a trade-weighted basis) reached a peak in February and began to decline, at first slowly, then more rapidly after the September Group-of-Five agreement. By the end of 1985 the dollar had declined over 20 percent from the February peak, although the value remained high by historical standards. The decline in the exchange rate had little effect on export or import volumes, however.

Real imports continued to rise through 1985, and exports declined slightly. Some economists estimate that changes in the exchange rate take about 18 months to have a major effect on import and export volumes. Sector impacts varied. Exports of food, beverages, and tobacco declined more than 20 percent in 1985, while exports of manufactured goods declined more than 10 percent. Imports of food, beverages, and tobacco remained relatively steady, but imports of manufactured goods rose about 8 percent.

One bright spot of 1985 was low inflation. Slower growth, excess capacity, and a relatively high unemployment rate relieved

Figure 3
Trade-Weighted Exchange Rate Index

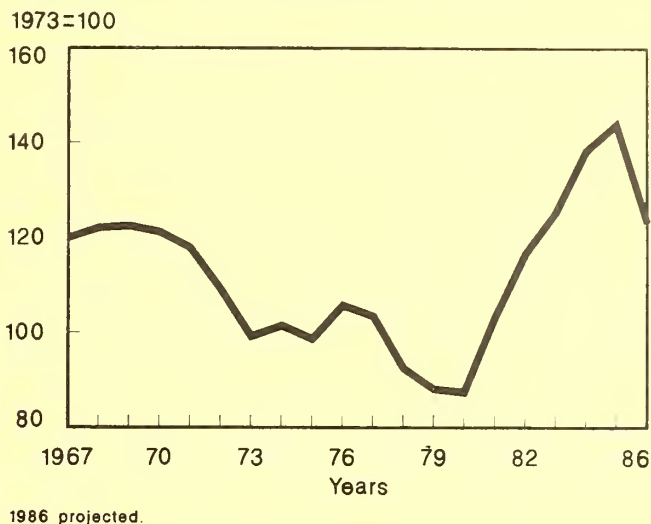
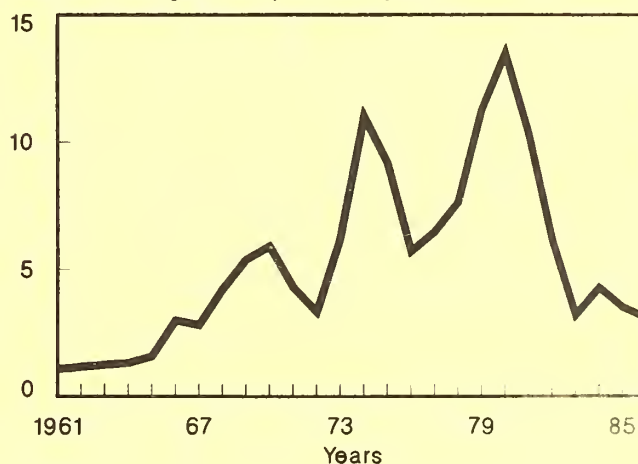


Figure 4
Consumer Price Index

Percent change from previous year

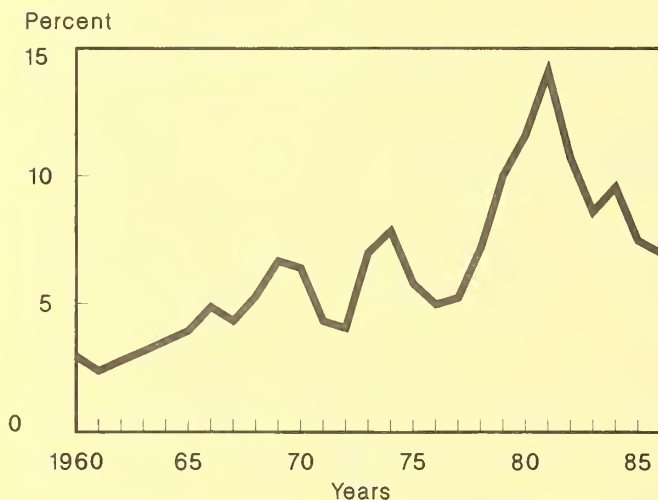


demand pressure on prices, while falling oil prices and large harvests dampened increases on the cost side. By any measure, inflation fell in 1985, giving the lowest back-to-back annual inflation rates since the early 1970's. Overall consumer prices rose just above 3 percent for the year, while consumer food prices rose at about 2 percent and prices of services rose by 5. Producer prices for finished goods rose less than 1 percent. Producer crude materials prices declined by nearly 8 percent, in contrast with a 2-percent increase in 1984.

The interest rate picture, too, was brighter in 1985 than in 1984, as rates fell across securities of all duration. The rate on 3-month Treasury bills began the year at 8.2 percent and ended near 7, while Moody's AAA bond rate fell by about 1.25 percentage points. The decline brought rates back to their 1978 levels.

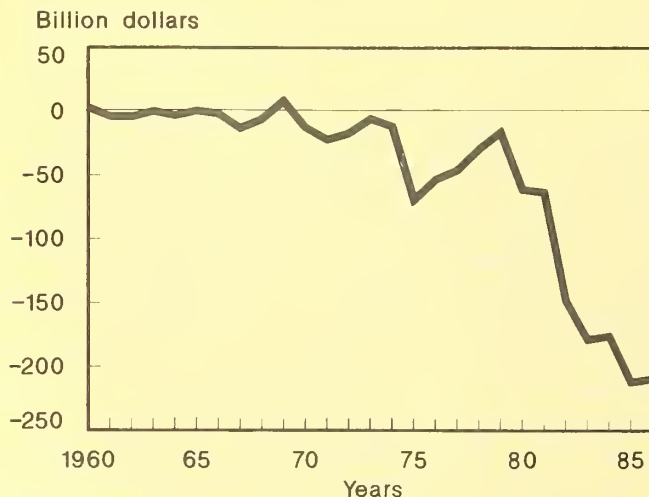
Two major factors helped to bring about these declines. First, as inflation remained low, the inflation expectation component of interest rates was revised downward, reducing nominal rates. Secondly and more

Figure 5
Three-Month Treasury Bill Rates



1986 projected.

Figure 6
Federal Surplus or Deficit



1986 projected.

importantly, monetary policy was very accommodative in 1985, with M1 and M2 growth exceeding the targets announced by the Federal Reserve. M1 grew nearly 12 percent for the year, though the target range was 4 to 8 percent. Continued credit demand on the part of the Federal Government and consumers kept interest rates from falling even further. The Federal deficit for fiscal 1985 was \$212 billion, up from \$185 billion in 1984. Lower inflation and interest rates provided relief on the cost side of the farm balance sheet.

Employment changes in 1985 mirrored the production side of the economy. Civilian nonagricultural jobs rose more than 3 percent, but there was much variation among sectors. Manufacturing posted virtually no job gains, while services grew by more than 5 percent, construction at nearly 6 percent, and trade at nearly 5. In the face of this diversity of gains and with the labor force growing at about 3 percent, the unemployment rate declined only slightly, from 7.3 percent at the beginning of the year to near 7.0 by yearend.

Outlook for 1986

The economic expansion is expected to continue through 1986, at a rate slightly faster than the 1985 rate. Many forecasters predict that real GNP should grow about 3 percent, with real disposable income rising about the same. Since consumption of nondurables usually rises at about the same rate as income, growth in demand for nondurables should be near 3 percent. Investment should grow with GNP, but inventory accumulation could be strong, which would help to translate domestic demand into domestic employment and keep personal income growing.

Imports should stabilize and exports begin to recover in response to the decline in the exchange rate underway and expected slightly stronger growth abroad. This faster growth, however, depends largely on whether West Germany and Japan pursue a more stimulative fiscal policy than they did in the early 1980's—as agreed by the September Group-of-Five meeting. Higher export demand and lower imports should help to lead to across-the-board employment increases, which should help to keep personal income growth up.

Inflation is expected to remain low, although the rate should be higher than 1985 because of the upward pressure exerted by the decline in the dollar's value. Consumer prices should rise between 3 and 4 percent. While capacity utilization and employment are likely to rise, no severe bottlenecks to increasing production should appear.

Thus, moderate demand pressure should translate mostly into jobs and not into inflation. Oil prices, an important cost factor in many industries, are expected to decline substantially in 1986, because OPEC is likely to continue boosting production to maintain revenue. Some analysts believe that the OPEC benchmark crude price could drop to \$20 per barrel, from the 1985 average of \$25. Such a decline will further restrain consumer and producer price increases.

Moderate real growth, low inflation, and an accommodative monetary policy probably will keep interest-rate movements small, although interest rates should be slightly lower in 1986. Short-term rates should remain in the 7- to 8-percent range, although slightly higher rates could result if real growth is faster than about 3 percent. Longer term rates should stay 10 to 11 percent.

The preceding outlook depends on several crucial factors:

- o The value of the dollar must continue to decline or at least maintain the drop experienced in 1985. Should the dollar begin to rise, the export and import picture could continue the 1985 pattern, leading to a continuation of the uneven economic expansion experienced in 1985. Employment gains in the goods-producing sector would probably be nullified.
- o The outlook depends on the Federal Reserve Board's maintaining a relatively accommodative monetary policy. Credit tightening could lead to higher interest rates and choke off the expansion.
- o The course of the economy depends critically on the public perception of the recently enacted Gramm-Rudman Amendment, which mandates a balanced Federal budget by 1991. If the program is effective in reducing Federal expenditures, likely results would be

slower-than-previously-expected real growth (a result of the decline in Government spending), lower interest rates (a result of lower credit demand), and lower inflation (a result of a softer economy). Accommodative Federal Reserve policy becomes even more important if the economy is to be kept out of a period of slower real growth.

For the farm sector, the implications of such an outlook are fairly clear. Since interest rates will probably not rise very much and the rate of inflation will probably remain low by recent standards, costs should not rise very much in 1986. Demand for farm output will probably be slightly higher in 1986 than in 1985, and this could lead to a slightly brighter picture for the farm sector in 1986. However, gains in the general economy are not likely to provide significant improvement for the current financial stress faced by the farm sector.

THE FARM ECONOMY

Large supplies and weak demand dominated the farm economy in 1985 and will likely continue to do so in 1986. Farm incomes and prices are under pressure and stocks are continuing to build. Returns to assets and equity remain relatively low, although they have improved considerably. As a result, resources will continue to leave the farm sector and the value of farm assets will continue to decline.

However, losses in equity will taper off from 1985. Between 10 and 12 percent of U.S. farmers will remain under financial stress, with the highest concentrations in the Lake States, Corn Belt, and Plains States. Farmers are voluntarily lowering the cost structure of the sector by reducing the use of variable inputs, durable capital inputs, and credit. Involuntary reductions are occurring as farmland values drop, causing further effects on borrowing capacity. These reductions will slightly slow productivity growth. Sector liquidity will improve despite low prices, as is demonstrated by stable cash incomes in the sector for 1985 and projected for 1986.

Farm exports will remain lackluster in 1986, offering relief to livestock producers but dismal prices for crop producers. Government

stocks will be a major demand source in 1986; participation in Federal support programs is expected to be very high. Direct payments to farmers will also be very large.

Farm Income

In 1985, net farm income declined by about a fifth from the record \$34.5 billion in 1984 (table 5). After adjustment for inflation,

net farm income is in the \$11-\$13 billion range, down from the \$15.5 billion in 1984, which was a 5-year high. The 1985 drop is attributable to low prices resulting from a 5-percent increase in farm output, and a reduction in livestock inventory values. Also contributing to the decline was a slight reduction in farm-related and nonmoney income sources.

Table 5.--Farm income and cash flow statement

Item	1982R	1983R	1984R	1985F	1986F
<u>Billion dollars</u>					
Farm income sources					
1. Cash receipts	142.9	136.3	141.8	136 - 140	134 - 138
Crops <u>1/</u>	72.7	66.8	69.1	66 - 70	64 - 68
Livestock	70.3	69.4	72.7	67 - 71	69 - 73
Cash Government payments	3.5	4.1	4.0	6 - 9	6 - 10
Value of PIK commodities	0.0	5.2	4.5	0	0
2. Direct Government payments	3.5	9.3	8.4	6 - 9	6 - 10
3. Farm related income <u>2/</u>	2.6	2.5	3.0	2 - 4	2 - 4
4. Gross cash income (1+2+3) <u>3/</u>	149.0	148.1	153.3	147 - 152	145 - 150
5. Nonmoney income <u>4/</u>	14.0	13.1	12.9	11 - 13	10 - 12
6. Realized gross income (4+5)	163.0	161.2	166.2	158 - 163	156 - 161
7. Value of inventory change	-1.4	-10.6	7.8	-1 - 3	-4 - 0
8. Total gross income (6+7)	161.6	150.6	174.0	159 - 164	154 - 159
Production expenses:					
9. Cash expenses <u>5/</u> <u>6/</u>	110.7	109.8	114.1	108 - 112	107 - 111
10. Total expenses	136.9	135.6	139.5	132 - 136	130 - 134
Income statement:					
Net cash income <u>1/</u> <u>6/</u>					
11. Nominal (4-9)	38.3	38.3	39.2	37 - 41	37 - 41
Deflated (\$1972) <u>7/</u>	18.5	17.8	17.5	16 - 18	14 - 17
Net farm income <u>1/</u>					
12. Nominal total net (8-10)	24.6	15.0	34.5	25 - 29	22 - 26
Deflated total net (\$1972) <u>7/</u>	11.9	7.0	15.5	11 - 13	9 - 11
Deflated total net (\$1967) <u>8/</u>	8.5	5.0	11.1	8 - 10	6 - 8
13. Off-farm income	37.9	38.8	40.0	39 - 43	40 - 44
Other sources and uses of funds:					
14. Change in loans outstanding <u>6/</u>	7.3	3.5	-1.5	-10 - 6	-6 - 2
Real estate	4.0	2.5	-0.8	-6 - 3	-5 - 1
Non-real estate <u>9/</u>	3.3	1.0	-0.7	-4 - 2	-3 - 1
15. Rental income	5.7	4.6	5.4	4 - 6	3 - 6
16. Gross cash flow (11+14+15)	51.3	46.3	43.1	34 - 38	38 - 42
17. Capital expenditures <u>6/</u>	13.7	13.0	12.5	10 - 14	9 - 13
18. Net cash flow <u>1/</u> <u>6/</u> (16-17)	37.6	33.3	30.7	22 - 26	28 - 30

R=revised. F=forecast as of 11/19/85. 1/ Includes net CCC loans. 2/ Income from custom work, machine hire, farm and recreational activity, and forest products. 3/ Numbers in parentheses indicate the combination of items required to calculate a given item. 4/ Value of home consumption of farm products and imputed rental value of farm dwellings. 5/ Excludes depreciation and perquisites to hired labor. 6/ Excludes farm households. 7/ Deflated by the GNP implicit price deflator. 8/ Deflated by the CPI-U. 9/ Excludes CCC loans.

Barring unanticipated changes in policy, weather, or world supplies, net farm income in 1986 will likely decline even though farm output is expected to fall 4 to 8 percent. Direct Government payments to farmers, in the form of income transfers, will likely exceed those thus far in the 1980's, because of low prices and large crop volumes. Declining feed prices will provide some improvements in the income prospects for livestock producers.

In 1985, net cash income (the difference between gross cash income received from farming activities and total cash expenses incurred during the year) may equal or exceed 1984's record of \$39.2 billion. Real net cash income, however, could slip a little. Since 1979, net cash income has averaged \$37.6 billion in current dollars. In 1986, net cash income is projected to decline, but it should remain above the average of 1979 to 1984. Real net cash income will probably register another decline in 1986. (Net cash income by type of farm is reported in appendix 1.)

Off-farm income rose in 1985 and should rise again in 1986, making it the only income source projected to rise in the near future. Off-farm income is especially important to farms with annual sales of \$40,000 or less. Total cash income and income from nonfarm sources will show slight gains from 1984 in 1985-86.

Cash Receipts

Total cash receipts from the marketing of crops and livestock in 1985 likely tallied 1 to 3 percent lower than the \$141.8 billion of 1984 (table 6). Crop receipts (including net CCC loans) remained near the 1984 total of \$69.1 billion, as a 13-percent drop in prices received was partially offset by a rise in marketing volume induced by a 5-percent rise in crop production. Net CCC loans last year accounted for 12 to 16 percent of total crop cash receipts, with a large share of the record \$9 to \$11 billion in loans being taken by wheat and corn farmers. It is likely that 1986 will show similar patterns, as carryover stocks and production levels remain high and low market prices persist. However, total crop cash receipts are forecast to fall 3 to 7 percent. The crop receipts decline will likely occur during the second half of the year, when continued low prices combine with the expected smaller output from the 1986 crop.

Production Expenses

Total farm expenses fell 3 to 5 percent in 1985 from 1984's \$139.5 billion, as a result of the 1-percent drop in the prices paid by farmers for all inputs and declines in overall input use. All major expense categories exhibited declines, with the sharpest drop occurring in total interest charges (table 7).

Table 6.--Cash receipts, 1982-1986

Item	1982	1983	1984	1985F	1986F
Billion dollars					
Crop receipts ^{1/}	72.7	69.8	69.1	66-70	64-68
Food grains	11.5	9.7	9.7	8-11	7-10
Feed grains & hay	17.2	16.2	16.5	15-19	15-19
Oil crops	13.8	13.5	13.7	10-14	9-13
Other crops	30.2	27.4	29.2	27-31	27-31
Livestock receipts	70.3	69.4	72.7	67-71	69-73
Meat animals	40.9	38.9	40.8	37-41	37-41
Poultry & eggs	9.6	10.0	12.2	10-12	10-12
Dairy products	18.2	18.8	17.9	17-19	17-19
Other livestock	1.6	1.8	1.9	1-2	1-3
Total cash receipts	142.9	136.2	141.8	136-140	134-138

^{1/} Includes net CCC loans. Totals may not add because of rounding. F = forecast.

Table 7.—Production expenses, 1982-1986

Item	1982	1983	1984	1985F	1986F
Billion dollars					
Farm origin	31.5	33.1	33.4	30-32	30-34
Manufactured	22.2	21.3	23.1	21-23	20-24
Interest	21.8	21.4	21.1	19-21	18-22
Other operating ^{1/}	28.2	28.0	29.6	29-31	27-31
Other overhead ^{2/}	33.3	31.8	32.2	30-32	28-32
Total expenses	136.9	135.6	139.5	132-136	130-134

^{1/} Includes repair and operation, hired labor, machine hire, cotton ginning, crop insurance, and other miscellaneous operating expenses. ^{2/} Includes capital consumption, property taxes, and net rent to nonoperating landlords. F = forecast.

Outlays for farm-origin inputs fell 4 to 6 percent because of lower feed grain prices and reduced shipments of feeder cattle. The expected drop in feeder livestock expenses can be attributed to fewer placements offsetting slightly higher feeder prices.

Fertilizer, fuel, and pesticide outlays were also lower in 1985, a result of both lower prices and reduced use. These declines pulled total outlays for manufactured inputs down 2 to 4 percent from 1984. With interest rates and average debt outstanding down, total interest charges likely registered a 5- to 7-percent drop in 1985, making it the third consecutive year of decline. Short-term interest charges were down 6 to 8 percent. Real estate interest expenses likely dropped 3 to 4 percent.

In 1986, both total production expenses and cash expenses are projected to decline, as a result of yet another drop anticipated in total input use. Most major expense categories are expected to register modest declines. Manufactured input expenses could decline a bit in 1986, with fertilizer, fuel, and pesticide outlays likely to fall and electricity expenses rising somewhat. However, significantly lower outlays for feed, a result of continued low feed grain prices, will be offset by a slight rise in feeder livestock purchases to leave total outlays for farm-origin items about even with 1985.

Interest expenses should also continue to fall in 1986, as market interest rates remain near those of 1985 and farmers continue to reduce borrowing, choosing to operate on

internally generated cash in place of new loans wherever possible. The recent declines in depreciation expenses will likely persist through 1986 as capital expenditures also follow the current declining pattern.

Government Payments

As in the past few years, Government payments will provide a significant contribution (around 5 percent) to farmers' gross cash income in both 1985 and 1986. Direct Government payments (mainly deficiency, diversion, storage, and conservation programs) likely totaled nearly \$8 billion in 1985, similar to the \$8.4 billion of 1984. However, in contrast to 1984, when \$4.5 billion of the total consisted of entitlements from the PIK program, nearly all of 1985's payments consisted of cash. Direct payments in 1986 likely will be as large as 1985's. Wheat and corn farms will probably continue to receive a significant share of total payments in 1986.

Farm Sector Balance Sheet

Farm Assets

While the cash income position of the sector improved in 1985, the overall financial picture worsened because of declines in farmland values and net worth (table 8). Land values fell an unprecedented 13 percent in 1984, and are estimated to be down by 8 percent or more for 1985, the fourth consecutive year of declining values. In 1986,

Table 8.—Balance sheet of the farm sector excluding operator households, December 31, 1980-86

Item	1980	1981	1982	1983	1984P	1985P	1986F	Change 1984-85	Change 1985-86
<hr/>									
	Billion dollars							Percent	
Assets:	1,003.2	1,005.2	977.8	956.5	856.1	803.6	777.7	-6.1	-3.2
Real estate	779.2	780.2	745.6	736.1	639.6	588.4	564.9	-8.0	-4.0
Non-real estate:	193.9	192.6	197.3	183.8	178.4	177.0	175.1	-.1	-1.2
Livestock and poultry	60.6	53.5	53.0	49.7	49.7	46.3	49.2	-.7	6.3
Machinery and motor vehicles	96.8	103.0	103.7	100.9	95.0	92.2	89.2	-2.9	-3.3
Crops stored on and off-farm	36.5	36.1	40.6	33.2	33.7	38.5	36.7	14.2	-4.7
Financial assets:	30.2	32.3	35.0	36.6	38.1	38.1	37.7	.0	-1.0
Demand deposits	5.5	5.6	5.8	6.1	6.2	6.5	6.6	4.8	1.5
Currency	1.9	1.9	2.0	2.0	2.1	2.2	2.3	4.8	4.5
Investments in co-ops	22.8	24.8	27.2	28.5	29.8	29.4	28.8	-1.3	-2.0
Liabilities:	170.4	189.0	203.7	202.5	198.9	198.6	197.3	-.2	-.7
Real estate debt	87.9	97.3	101.2	103.7	102.9	98.7	95.8	-4.1	-3.0
Non-real estate debt	82.5	91.7	102.4	90.8	96.0	99.9	101.5	4.1	1.6
CCC	5.0	8.0	15.4	10.8	8.7	16.1	8.5	85.1	14.9
Other	77.5	83.7	87.0	88.0	87.3	83.8	83.0	-4.0	-1.0
Proprietors' equity	832.9	816.3	774.2	754.0	657.2	605.0	580.4	-7.9	-4.1
Total claims	1,003.2	1,005.2	977.8	956.5	856.1	803.6	777.7	-6.1	-3.2
<hr/>									
	Percent								
Debt-to-asset ratio	17.0	18.8	20.8	21.2	23.2	24.7	25.4	6.5	2.8

P = preliminary. F = forecast.

the decline is likely to slow to about one-half that of 1985, since land values in many regions are now approaching levels that can be supported by actual earnings. If the estimated declines for 1985 are correct, land by the end of 1986 will have slipped in value by about 28 percent since 1981, and by 34 percent after accounting for inflation.

The value of non-real estate and financial assets for 1985 is currently estimated to remain about even with 1984's \$216.5 billion. Another decline occurred in 1985 for machinery and motor vehicle inventories and livestock values. However, these likely were offset by increases in crop inventories and financial assets. The value of total farm assets at the end of 1986 is likely to fall below \$800 billion, compared with the \$1 trillion high reached in 1981—a loss in wealth of nearly \$250 billion in current dollars.

Farm Debt

Total farm debt outstanding for 1985 is estimated to have remained about the same as the \$198.9 billion level at the end of 1984 (table 9). Farm debt excluding CCC loans last year probably fell about 4 percent below 1984,

as real estate and non-real estate debt outstanding each declined about the same amount. However, a surge in CCC loan activity during the third and fourth quarters of 1985, caused by continued poor crop prices relative to CCC loan rates, probably offset declines in the other debt categories. Because of near-record crop production last year, many crop farmers—with the assistance of Government programs—have enough cash to enable them to pay down some of their debt. Real estate debt for 1985 is estimated to be down to about \$99 billion, compared with \$102.9 billion in 1984. This is its second consecutive decline and the largest year-to-year drop since 1944.

High real interest rates, low returns on capital invested in agriculture, and lower land values first slowed and more recently reversed the expansion in real estate debt. See appendix tables 3 and 4 for real estate and non-real estate debt by lender.

Net Worth

Total net worth in the sector fell to \$605 billion in 1985, compared with the peak value

Table 9.—Total farm debt excluding households, December 31, 1980-1986

Year	:	:	Excluding CCC loans		:	Including CCC loans				
	:	Real	:	:	:	:	:			
	:	estate	:	Non-real	:	CCC loans	:	Non-real	:	Total
:	debt	:	estate debt	:	debt	:	estate debt	:	debt	
Million dollars										
1980	87,945		77,451		165,396	:	4,978		82,429	170,374
1981	97,255		83,691		180,946	:	8,011		91,702	188,957
1982	101,238		86,992		188,230	:	15,433		102,425	203,663
1983	103,727		87,960		191,687	:	10,801		98,761	202,488
1984	102,911		87,251		190,162	:	8,719		95,970	198,881
1985P	98,742		83,799		182,541	:	16,100		99,899	198,641
1986F	95,800		83,000		178,800	:	18,500		101,500	197,300
Annual percent change										
1980	12.0		8.2		10.2	:	-1.8		7.6	9.8
1981	10.6		8.1		9.3	:	60.9		11.2	10.9
1982	4.1		3.9		4.0	:	92.6		1.7	7.8
1983	2.5		1.1		1.8	:	-30.0		-3.6	-6
1984	-8		-8		-8	:	-19.3		-2.8	-1.8
1985P	-4.1		-4.0		-4.0	:	84.7		4.1	-1
1986F	-3.0		-1.0		-2.0	:	14.9		1.6	-.7

P = preliminary. F = forecast.

of \$833 billion in 1980. Equity for the farm sector as a whole is approaching 1977 levels and further declines are expected in 1986 because of declines in land values. Losses in equity have been highly concentrated, occurring largely in the Midwest and Plains States, where land value drops have been most severe. Equity losses to many farmers in these regions have reached the point where the producers have neither the ability to repay their debt obligations nor the equity to roll them over. Land purchased since the late 1970's with normal debt financing has per-acre debt levels that exceed the value of the land; thus equity losses are now being reflected in the balance sheet of farm lenders.

Over 80 percent of all farms have equity of 60 percent or more, making them financially secure and attractive clients for agricultural lenders. Despite large equity losses, many such farmers have large wealth accumulations which leave them as well off today as they were in the mid-1970's.

Recent equity losses will constrain the ability of the sector to expand production capacity and increase productivity, since firms with low equity cushions may not be able to finance purchases of new machinery and equipment. The effects of contracting capital purchases on output are not well documented.

However, available research suggests that any decline in output will likely lag such contraction by several years.

Return on Assets and Owner Equity

Return to assets is a measure of financial performance which reflects earnings per dollar of owned and borrowed capital. Return to equity, by contrast, reflects farmers' earnings per dollar of owned capital only. ^{1/} Differences between these two ratios indicate the benefits or the risks of debt financing. If the return to assets is higher than the return to equity, the implication is that borrowed capital is costing the farmer more than it benefits him. Based on the relationship, table 3 above indicates that debt financing has reduced sector returns for every year since 1980 and will likely continue to do so in 1985 and 1986.

^{1/} Returns to assets is calculated by dividing net farm income plus interest paid during the year less the imputed value of family labor and management inputs by total assets. Total assets include owned assets and those acquired by borrowing. Returns to equity is derived by subtracting the imputed value of family labor and management inputs from net farm income and dividing the remainder by net worth.

The income returns for 1985 should be about the same as in 1984 for both measures. The nominal income to capital after adjusting for operators' labor and management is lower in 1985 than the preceding year, but the value of the sector's asset base also declined, leaving the returns on assets and equity unchanged. Due to the large crops and farm program support, which enhanced income (and thus raised the numerator in the rate of return), and declines in asset values (which decreased the denominator), the rates of return in both 1984 and 1985 were higher than for any year since 1979. The return to assets from income in 1985 was near the level earned during much of the 1960's and 1970's. However, real interest rates are higher now than in the 1960's and 1970's, indicating that agriculture is not yet competitive with other investments in attracting investment funds.

The return on equity is still lower than during the 1960's and 1970's, reflecting the relative disadvantage of debt-financing today. After adjustment for changes in real capital gains, the return on the farm sector's equity in 1985 likely was improved over 1984 but still negative. Total earnings on investment in 1985, including capital gains, were well below the 6.4-percent average earned during the 1970's.

Delinquencies, Farm Liquidations, and Bankruptcies

A recent survey of 1,140 agricultural bankers conducted by the American Bankers Association (ABA) shows growing problems in farm-loan delinquencies, losses, and repayment rates. ^{2/} While data from this survey should be interpreted with caution, the results generally are consistent with other sources of data on commercial bank performance.

^{2/} The ABA's 1985 Mid-Year Farm Credit Survey is an opinion survey sent to a probability sample of 2,600 banks. To qualify as an agricultural bank, an institution had to have more than \$2.5 million in total farm loans. Banks with less than \$2.5 million also qualified if 50 percent or more of their total loan volume was in farm loans.

Nearly two-thirds of the bankers responding to the survey reported that the overall quality of their bank's farm-loan portfolio had declined in the year ending mid-1985. However, banks reported that about 95 percent of their farm loan volume was up-to-date in payments. A larger number of bankers expect the quality of their farm-loan portfolios to decline in the year ending mid-1986 than expect an increase in quality (tables 10 and 11).

Although conditions vary considerably among regions of the country and among areas dominated by certain types of farming enterprises, the proportion of bankers reporting increases in farm loan delinquencies and loan losses rose from a low of less than 20 percent in 1976-80 to more than 50 percent in 1985. Similarly, the proportion of bankers reporting declining farm loan repayment rates increased from about 30 percent to about 50 percent in 1985. The largest increase in loan volume delinquencies occurred in the West. Bankers in the South had experienced declining delinquency rates since June 1982, when they averaged 4.6 percent. In June 1985, delinquency rates at agricultural banks in the South rose from 4.0 to 4.2 percent, according to the survey.

Between 4 and 5 percent of farmers had their financing discontinued in the year ending June 1985. The highest rates were in the South and areas dominated by cotton farms. Bankers anticipate that farmers in their trading areas having their financing discontinued in the year ending June 1986 will increase to nearly 6 percent. The past 2 years, reporting bankers have underestimated this rate. Bankers projected beef feedlot areas to have a high rate of discontinued financing this year, despite improving prices, but expected cotton-producing areas to have the largest increase.

Nationwide, bankers reported that about 5 percent of farmers in their trading areas went out of business during the year ending in June. There were no significant differences across regions or types of farming areas. Cotton areas showed the largest increase in farmers going out of business, rising to nearly 7 percent of farms, reflecting the low prices and low returns to cotton producers in recent years. The overall high failure rate in cotton is roughly equivalent to the failure rate of

Table 10.--Indexes of financial stress in agriculture, by region

Item	United States		Northeast 1/		Corn Belt 2/		South 3/		Plains 4/		West 5/	
	1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985
Number of farm loans delinquent 30 days or more (June)	NA	NA	3.8	NA	NA	NA	4.8	NA	NA	3.8	NA	NA
Farm loan volume delinquent 30 days or more (June)	3.9	3.7	4.5	5.3	3.4	3.5	5.3	6.9	4.0	3.5	4.3	5.2
Farm borrowers who had bank financing discontinued (during year ending in June)	3.3	2.9	3.4	4.5	2.8	2.7	3.5	4.7	2.8	2.5	3.0	3.8
Those discontinued estimated percent not financed elsewhere	NA	36.2	NA	35.9	NA	36.5	NA	39.2	NA	36.9	NA	33.8
Farm borrowers whom banks anticipate discontinuing (during year ending next June)	4.4	2.0	3.1	5.7	3.5	1.8	3.2	6.0	4.2	1.5	3.0	5.3
Farm borrowers loaned up to practical limit in June	31.9	28.1	32.8	36.7	26.1	26.7	30.1	34.4	27.3	26.0	31.2	34.7
Farm borrowers expected to be loaned up to practical limit next June	34.8	28.6	33.9	39.2	29.7	27.2	31.8	37.9	31.4	26.2	31.6	37.2
Farmers in bank lending area who went out of business (during year ending in June)	2.2	2.3	3.6	4.8	1.8	2.0	3.4	4.9	1.9	2.2	3.6	4.6
Liquidation categories of farmers going out of business												
Normal attrition	NA	37.7	31.3	27.7	NA	43.4	32.1	30.5	NA	39.5	35.8	29.9
Voluntary liquidations	NA	42.4	44.0	44.3	NA	38.9	45.3	46.0	NA	38.6	40.1	42.3
Legal foreclosures	NA	18.1	22.3	25.8	NA	15.8	20.7	21.9	NA	20.0	20.4	26.3
Others	NA	1.8	2.4	2.2	NA	2.4	1.0	1.5	NA	1.7	3.1	1.5
Farmers in bank lending area who went through bankruptcy (during year ending in June)	.75	1.1	2.6	3.8	.37	1.0	2.6	4.0	.73	1.0	2.3	3.3
Own bank farm bankruptcy	NA	NA	NA	1.5	NA	NA	NA	2.0	NA	NA	NA	1.4

Source: American Bankers Association midyear Farm Credit Survey, 1982, 1983, 1984, and 1985.

1/ CT, DE, DC, ME, MO, MA, MT, MN, NY, PA, RI, VT, WI. 2/ IL, IN, IA, MO, OH. 3/ AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV. 4/ KS, NE, ND, OK, SD, TX. 5/ AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY. NA = Not available.

Table 11.—Indexes of financial stress in agriculture, by type of farming area

Item	Feed, food crop, soybeans				Dairy				Cow-calf				Beef-feedlots				Hog and other livestock				Cotton			
	1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985
Percent																								
Number of farm loans delinquent 30 days or more (June)	NA	NA	3.7	NA	NA	NA	4.8	NA	NA	NA	4.6	NA	NA	NA	5.6	NA	NA	NA	NA	NA	NA	NA	NA	2.9
Farm loan volume delinquent 30 days or more (June)	4.0	3.5	4.4	5.3	3.6	3.8	5.3	6.2	4.5	4.5	4.8	6.0	3.4	3.7	4.5	6.7	3.0	3.8	3.3	4.5	5.2	3.9	6.5	4.1
Farm borrowers who had bank financing discontinued (during year ending in June)	3.1	2.7	3.4	4.3	3.4	3.1	3.2	5.4	2.9	3.9	3.1	3.4	2.8	2.2	5.1	6.0	2.8	2.6	2.7	3.8	5.2	3.5	3.7	8.6
Those discontinued estimated percent not financed elsewhere	NA	36.6	NA	34.0	NA	39.9	NA	39.0	NA	34.6	NA	44.8	NA	46.6	NA	34.8	NA	38.5	NA	34.0	NA	36.0	NA	23.2
Farm borrowers who banks anticipate discontinuing (during year ending next June)	4.4	1.9	3.2	5.8	4.4	1.9	2.7	5.4	4.0	2.4	3.3	5.8	3.8	1.6	4.7	7.8	7.1	3.7	2.9	4.7	5.7	2.5	1.8	7.2
Farm borrowers loaned up to practical limit in June	30.7	27.0	33.0	33.0	25.4	25.7	27.4	34.6	35.0	32.5	34.9	38.0	37.9	27.8	43.4	40.1	27.4	29.8	25.7	35.0	41.2	33.9	56.3	50.1
Farm borrowers expected to be loaned-up to practical limit next June	34.5	27.2	33.9	39.5	27.8	26.9	28.9	38.4	36.4	34.5	37.1	40.2	39.5	27.3	46.6	40.6	30.7	29.0	26.2	36.2	41.3	34.6	58.0	50.8
Farmers in bank lending area who went out of business (during year ending in June)	2.2	2.2	3.6	4.8	1.8	2.6	3.5	4.8	2.3	2.4	3.5	4.9	1.7	1.9	3.9	4.1	1.6	1.9	3.5	4.5	4.8	2.8	3.0	6.7
Liquidation categories of farmers going out of business	NA	37.4	33.0	27.6	NA	41.3	31.8	32.0	NA	32.4	28.0	28.9	NA	36.6	21.9	15.5	NA	44.9	31.1	21.6	NA	26.4	19.3	18.2
Normal attrition	NA	42.6	43.0	43.7	NA	39.1	44.2	45.3	NA	48.5	46.6	41.8	NA	44.5	45.4	60.1	NA	38.7	49.5	51.9	NA	53.6	53.7	50.1
Voluntary liquidations	NA	18.4	21.8	26.7	NA	16.8	20.5	20.1	NA	18.0	22.5	28.8	NA	18.3	30.7	22.0	NA	14.5	17.1	22.2	NA	19.1	25.3	28.8
Legal foreclosures	NA	1.8	2.4	2.0	NA	2.5	2.4	2.6	NA	1.8	1.1	0.5	NA	0.6	1.9	1.8	NA	0.6	2.3	4.4	NA	0.3	1.7	2.9
Other																								
Farmers in bank lending area who went through bankruptcy (during year ending in June)	.72	1.0	2.2	3.6	.51	.91	3.9	4.1	.92	1.3	2.0	4.9	.37	.47	3.1	2.1	.66	2.2	1.5	3.0	1.7	.73	2.4	3.4
Own bank farm bankruptcy	NA	NA	NA	1.4	NA	NA	NA	2.2	NA	NA	NA	1.3	NA	NA	NA	0.6	NA	NA	NA	1.9	NA	NA	NA	1.6

Source: American Bankers Association midyear Farm Credit Survey, 1982, 1983, 1984, and 1985. NA = Not available.

nonfarm sole proprietorships in normal economic times. Failure rates reported by bankers for other types of farming operations are higher than average for agriculture but quite low compared to some nonfarm sectors.

Farm liquidations nationwide in June 1985 averaged 4.8 percent (up from 3.6 percent in June 1984). Farm bankruptcies rose from about 1 percent in the early 1980's to 1985 rates of 2 to 5 percent in different regions of the country (table 11). Bankers report that bankruptcies are very low among their own farm borrowers.

AGRICULTURAL LENDERS

Current Lender Loan Portfolios

The December 31, 1985 percentage distribution by lender of the \$198.6 billion in total farm debt, excluding operator households, is summarized in table 12. Individuals and others are estimated to hold 21.6 percent of the total. The largest institutional lender category is commercial banks with 23.0 percent. The Federal Land Banks (FLB's) follow closely with 21.0 percent. The various parts of the Farm Credit System together account for 28.8 percent of all farm loans, making FCS the dominant farm lender.

Data from USDA's most recent Farm Costs and Returns Survey (FCRS), conducted in the spring of 1985, describe farm lender loan portfolio quality and portfolio concentration. The distribution of farm operator business debt held by selected farm lenders, by debt-asset ratio, on December 31, 1984 is shown in table 13. Nearly 40 percent of outstanding FmHA debt was held by operators with debt-asset ratios over 70 percent and negative cash flows. Comparable figures for the FCS and commercial banks were about half as much. Furthermore, farm operators with negative cash flows held about 65 percent of total debt owed to the FCS and commercial banks on December 31, 1984; the comparable figure for the Farmers Home Administration (FmHA) was 77 percent.

The FCRS data show that the FmHA loan portfolio is both considerably weaker and more risky than that held by the FCS or the commercial banks. This would be expected since FmHA is the farm sector's lender of last resort.

Current Agricultural Lender Outlook

Farm lenders are facing rising rates of farm loan delinquencies, loan liquidations, foreclosures, bankruptcies, workouts, and farm loan losses. One result of this lender stress

Table 12.—Distribution of farm debt, excluding operator households, by lender, December 31, 1985 ^{1/}

Lenders	Type of debt		Total
	Real estate	Non-real estate	
	Percent of total		
Commercial banks	5.2	17.9	23.0
Farm Credit System	21.0	7.8	28.8
Federal Land Banks	21.0	---	21.0
Production Credit Associations	---	7.5	7.5
Federal Intermediate Credit Banks ^{2/}	---	0.3	0.3
Farmers Home Administration	5.0	8.0	13.0
Life insurance companies	5.5	---	5.5
Individuals and others ^{3/}	13.1	8.5	21.6
Commodity Credit Corporation	---	8.1	8.1
Total	49.7	50.3	100.0

^{1/} Forecast. Due to rounding some subcategories may not add to totals.
^{2/} Financial institutions other than PCA's that obtain funds from the FICB's. ^{3/} Includes Small Business Administration farm loans.

Table 13.--Portfolio quality: Distribution of farm operator borrowers and debt outstanding by financial stress category: FmHA, FCS, and commercial banks, December 31, 1984

	Financial stress category	Farmers Home Administration borrowers	Farm Credit System borrowers	Commercial Bank borrowers
Borrowers with debt-asset ratios over 70 percent:				
Farm operator borrowers		27.4	12.9	12.1
Lender debt outstanding		45.3	24.8	26.9
Borrowers with negative cash flow: 1/				
Farm operator borrowers		67.3	53.6	53.1
Lender debt outstanding		77.0	64.6	65.4
Borrowers with both negative cash flow and debt-asset ratios over 70 percent:				
Farm operator borrowers		23.3	10.1	9.4
Lender debt outstanding		39.9	20.5	21.7

¹/ Negative cash flow is defined as net cash income from farming plus off-farm income less \$12,950 for minimum family living expenses less principal repayment commitments estimated at 8.5 percent of total debt.

Source: USDA Farm Costs and Returns Survey (FCRS).

has been numerous proposals for public-sector assistance to distressed borrowers to ease the growing squeeze on farm asset markets. Included among the proposals and policies are debt deferral, debt restructuring, interest subsidies, expanded public sector lending via direct and guaranteed loans, capital infusions, changes in tax provisions, net worth certificates for agricultural commercial banks, and expanded counseling programs for distressed borrowers. Lenders that have a high concentration of loan portfolios in agriculture are obviously more vulnerable when farm financial conditions deteriorate.

Commercial Banks

The overall condition of banks heavily involved in agricultural lending has worsened over the past year. They have experienced lower profits, deteriorating loan quality, higher loan losses, and more failures relative to nonagricultural small banks as well as relative to the recent past. Given their current problems and forecasts of the farm sector's performance over the coming year, increased stress on agricultural banks is

expected. As more farm debt is forced into liquidation over the next year, loan delinquencies and charge-offs will rise. This will push up the number of potentially vulnerable, problem, and failed agricultural banks in 1986.

A few bright spots are evident, however, for the near future. The ability of agricultural banks to respond favorably to increased loan losses is enhanced by their ongoing buildup of loan loss reserves and capital. Loan portfolio diversification is also fundamental in spreading risk of loss among institutions in order to improve bank safety and soundness. With about 40 percent of farm loans held by nonagricultural banks, farm loan losses are less of a threat. Even the somewhat limited diversification at most agricultural banks has afforded them some protection from farm stress.

Despite the serious problems of agricultural banks, the farm financial crisis will have only limited effects on the commercial banking system. Agricultural loans and bank holdings of FCS securities combined amount to only 3 or 4 percent of the

banking system's total assets. Moreover, most of this is not at risk given current projections of farm stress. There remains a remote possibility that confidence in the commercial banking system could be shaken by the adverse publicity associated with the failure of a large number of agricultural banks. This could result in a run on small rural banks. The safeguards in place to protect the financial system, however, should be sufficient to limit the effects of any currently foreseeable bank problems associated with farm loan liquidations.

Projected farm loan difficulties could, however, seriously affect the banking system serving several States and regions. The majority of commercial bank lending volume in Iowa, Nebraska, and North Dakota is by agricultural banks. Moreover, agricultural banks in these and other States in the Plains and Corn Belt regions are suffering the highest incidences of loan delinquencies. Commercial bank credit availability in these areas is very sensitive to developments in the agricultural sector and will probably be somewhat reduced in the coming year.

Farm Credit System

The FCS faces many challenges resulting from its current financial condition, with new stresses and demands expected to arise during 1986. Just as there is variation in regional farm economic conditions, the FCS's ability to absorb losses in banks and associations differs significantly by district. The FCS faces a dilemma as it attempts to deal with extraordinary numbers of unsatisfactory loans.

In order to generate revenue to cover loan losses, build up loan loss reserves, and meet obligations to bondholders, the FCS has increased its interest rates. Higher rates may induce borrower flight, as quality loans are refinanced at lower commercial credit rates. Borrowers may also leave because of the risk of loss to their equity investment in association stock, should the association fail. Borrowers who cannot find alternatives, especially those with the weakest financial position, are further stressed by having to pay higher interest rates.

Exacerbating the system's problems is the decentralized nature of its decision-making structure compared to its centralized

fund-raising activity. Managing capital and retained earnings to maintain investor confidence and meet maturing obligations has been a challenge, and negotiating the necessary loss-sharing agreements has been time-consuming and costly.

It is generally recognized that many local FCS associations have extended more loan forbearance and loan restructuring than now seems prudent. They are taking steps to liquidate poor-quality loans, recognize associated losses, and ensure their viability. Foremost among these steps is setting aside reserves for future loan losses, liquidating acquired properties, and more closely examining the repayment capacity of farmers taking out new loans. Moreover, FCS banks are enforcing more stringent accounting practices to comply with generally accepted accounting standards. The change in accounting practices has accelerated the recognition of FCS's troubled loans and potential losses, but not the total amount of troubled loans and losses.

The financial deterioration of the FCS evoked calls for Federal action to head off the possibility that the system might fail and jeopardize many of its bondholders and borrowers. The Farm Credit Administration (FCA) announced in early September that the deteriorating farm income outlook would require a multibillion dollar assistance package within 18 to 24 months. Subsequently, the FCA made three recommendations to Congress: 1) grant FCA enforcement authority similar to other financial regulators and give it direct examination authority over system associations; 2) mandate self-help through the pooling of capital and liquidation of nonperforming loans, and improve the efficiency of FCS management practices; and 3) determine the appropriate level of public sector support for the system, based on the public policy objectives it serves.

FCA recommended a line of credit to the U.S. Treasury of up to \$5 billion to avert potential liquidity and solvency problems of the system, to calm the securities market, and to maintain a source of credit. The Farm Credit Council representing the FCS requested a loan of \$6 billion, with not more than \$2 billion each year. Legislation to assist the FCS was subsequently passed by Congress, and on December 23, President Reagan signed the

Farm Credit Amendments Act of 1985. It addresses three important areas of concern.

First, financial assistance is authorized. The FCS must provide self-help to the highest degree possible before it jeopardizes the district banks and associations. When the FCA certifies that financial assistance is needed, the Secretary of the Treasury is authorized to purchase FCS bonds using funds raised via the Second Liberty Bond Act. No specific limit on the dollar amount of assistance is given in the bill. However, all expenditures must first have been approved by Congress in appropriation acts.

Second, the bill recharterers the FCS Capital Corporation to purchase loans and acquire properties from all System entities. In short, it will channel assistance funds to districts in need and possibly provide financial warehousing of nonperforming loans and acquired property. The Capital Corporation will also administer financial self-help among units of the system and assure protection of stock and allocated equities held by FCS borrowers. The Capital Corporation board of directors will be comprised of three members to be elected by the FCS and two appointed by FCA. If Federal money were placed into the FCS, however, then a sixth member would be appointed by the Secretary of Agriculture, and the six would then elect a seventh member at-large.

Third, the bill authorizes the restructuring of the FCA. It strengthens FCA as an arm's-length regulator with cease and desist powers, and other changes are made that will make the FCA similar to regulators of other financial institutions. The FCA will be governed by a full-time three-member Presidentially-appointed board, with one of the three serving as chief executive officer of the agency.

Other provisions of the bill require the election of a seventh director for district Farm Credit boards on an at-large basis by borrowers within the district; a prohibition on chartering of more than one local association to serve the same territory; provision of new assurances for the protection of borrowers/stockholder interests; and provision of the same tax exemption (State and local) for obligations issued by the Capital

Corporation as those issued by the Farm Credit Banks.

Critical factors affecting future FCS viability are: ability to mobilize the surplus capital of the system; the timing and eventual amount of loan losses; the ability to liquidate nonperforming loans and the associated loan recovery rate; and the extent of flight by creditworthy borrowers. In turn, these factors will be heavily influenced by market and institutional factors such as income prospects for the farm sector, farmland value changes, and Federal farm programs.

Farmers Home Administration

For a half-century FmHA and its predecessor agencies have been the lender of last resort to farmers. In this role, the farmer loan programs administered by FmHA facilitated entry into the sector, aided farmers disadvantaged by economic and natural disasters, and graduated viable farming operations to become applicants for loans from private lenders. The farm sector downturn of the 1980's has focused increased attention on FmHA and its programs.

The performance of FmHA during the 1980's is particularly important in view of the functions it is mandated to perform. The FmHA loan portfolio is considerably weaker and riskier than that of the other lenders. The latest available data, for September 30, 1985, show that FmHA's delinquent farm debt stood at \$5.8 billion—up from the \$721.7 million of exactly 5 years earlier. The percentage of the FmHA farmer loan portfolio that was delinquent increased from 3.8 to 20.8 percent during the same period. The current stressful situation is expected to continue in 1986.

FmHA will continue to have the most extensive farm loan portfolio problems. Other lenders will continue to try to transfer high-risk borrowers to FmHA, or to obtain FmHA loan guarantees to improve their position and avoid added risk. Since the number of farmers who cannot find credit elsewhere is not likely to decline, there will be continued demands on FmHA. The agency has undertaken a wide range of policies and programs to cope with the added stress. These range from the Farm Credit Initiative to additional funds for operating loans (OL) in fiscal 1985.

The rate of FmHA lending was set by Congress at \$4 billion for fiscal 1986. Half of this total is loan guarantees. The actual rate of FmHA farm lending in 1986 will depend on a complex and unpredictable array of variables, ranging from the weather to the value of the dollar and farm exports. Given the degree of economic stress present, FmHA will continue to play a major lending role, and delinquencies in its portfolio will remain a significant problem.

Life Insurance Companies

The farm financial situation is expected to continue to be a major problem for life insurance companies holding farm mortgages in 1986. Life insurance company farm mortgage loan delinquencies and defaults will continue to be substantially higher than historical experience. Companies will continue to forbear, extend, or otherwise adjust the terms of problem loans, but in instances where reasonable projections do not allow for forbearance, they will proceed with foreclosure. Foreclosure often will be triggered by short-term lenders who cannot extend further credit to financially troubled borrowers.

Most farmers are making adjustments to current farm mortgage difficulties as best they can, by selling assets, cutting costs and, where possible, reorganizing their operations to take full advantage of farm support programs. Some farms that have adequate security are refinancing and others are offering the life insurance companies deeds in lieu of foreclosure. In response to the farm situation, many life insurance company farm loan departments will continue to spend a major portion of their time dealing with problem loans. Their efforts will run the gamut from long-range planning and restructuring of loans to partial and full liquidation. Full liquidations, in cases where there is no reasonable alternative, will be hampered by Chapter 11 bankruptcies, as well as moratoria and redemption rights in various States.

Some insurance companies report having given up agricultural lending, while others report that they are making loans on a very selective basis, mainly to existing customers. The companies have not adopted a "fire sale"

approach to liquidating properties for whatever they can obtain for them. This would entail large additional losses for the companies and drive farmland prices down even further, undermining the security on the rest of their loan portfolio. The companies continue to view foreclosures as the absolute last resort when nothing can be worked out with the borrower, and they usually take the form of a voluntary surrender of deed rather than a forced action. Companies will often try to lease the property back to the owner, if he or she can continue to find operating capital.

Life insurance companies generally prefer not to operate foreclosed properties themselves, but they have been increasingly forced into it in the 1980's. The major insurance firms in farm mortgage lending typically have experienced field staff people who can manage acquired properties, or they can get them managed by other professionals. There is an indication that some insurance companies are moving more into farm management and may acquire farm management companies. This suggests a strong intention of holding onto land rather than dumping it on the market in the near term.

Farm lending remains a fairly minor activity for most life insurance companies, and they have been able to absorb farm loan losses without undue consequences in most instances. In a nutshell, the challenges facing the life insurance companies in farm mortgage lending are likely to be considerable in the foreseeable future. The response is one of being very selective in making new farm mortgage loans, continuing to work with farm borrowers in financial difficulties, and moving to improve farm management techniques on acquired farms.

Recent Developments in Agricultural Lending

Since 1982 agricultural lenders have experienced increasing levels of loan losses and problem loans, resulting in greatly reduced earnings levels. In this section, 1985 developments for the major institutional lenders are compared with the earlier years of the 1980's, and a brief look is taken at some of the policies undertaken to alleviate farm and borrower financial stress.

Commercial Banks

There are two generally accepted definitions of agricultural banks. First, the more traditional definition identifies agricultural banks as those with farm (both production and real estate) loans accounting for 25 percent or more of their loan portfolios. This definition is favored by the Federal Deposit Insurance Corporation (FDIC). Second, in a departure from previous years, the Board of Governors of the Federal Reserve System (FRB) now defines agricultural banks as those for which the ratio of farm (both production and real estate) loans to total loans exceeds the average of such ratios at all banks on the date specified (16.93 percent on June 30, 1985).

Neither definition imposes a size limit, but almost all of the banks identified by these definitions have less than \$500 million in assets. Consequently, nonagricultural banks with less than \$500 million in assets comprise a useful comparison group. The more liberal FRB definition identifies over 1,000 more agricultural banks (table 14). Unless otherwise stated, the FRB definition is used throughout this section.

Using either definition, the number of agricultural banks has declined slightly over the past 3 years, as has the average of agricultural loan to total loan ratios at all banks. This, in part, reflects the ongoing decline in total farm debt observed over the same period. The annual percentage change on a quarterly basis in farm debt held by banks

has been negative for the first half of 1985, but by less than 1 percentage point. This decline is modest when compared to those of other lender groups. Despite the current problems associated with agricultural loans, there is little evidence that these banks as a group are making major adjustments to their portfolios to reduce their agricultural exposure. Thus, bank sources of credit for farmers are not disappearing, although credit terms and creditworthiness requirements may be more stringent.

Agricultural production loan quality, as measured by production loan delinquency rates, continues to deteriorate. The percentage of delinquent production loans rose to 9.0 percent in June 1985, up 2.4 percentage points from a year earlier. As can be seen in table 15, most of this increase was in the nonaccrual category. This is the least desirable category because full repayment is not anticipated for loans with nonaccrual status and these loans are not well collateralized. Renegotiated troubled debt showed the largest rate of increase but still remains the smallest component of production loan delinquencies. Debt in this category is always renegotiated on terms less favorable to the bank than they were originally.

The effects on commercial banks of declining farm loan quality are highlighted by comparing total loan delinquency rates at agricultural banks and nonagricultural small banks with farm production loan delinquency rates at all banks. The differentials between

Table 14.--Definitions of agricultural banks compared, 1982-85 ^{1/}

Item	Year			
	Dec. 1982	Dec. 1983	Dec. 1984	June 1985
Number of commercial banks	14,418	14,427	14,410	14,394
Number of agricultural banks (FRB definition)	5,156	5,115	4,987	4,965
FRB required farm loan ratio (%)	17.74	17.56	16.97	16.93
Number of agricultural banks (25% or more farm loans definition)	4,112	4,065	3,922	3,930

^{1/} Includes domestically chartered, FDIC-insured commercial banks with nonzero deposits.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

these three sets of rates have been increasing over time. Delinquent loans at agricultural banks accounted for 6.7 percent of all agricultural bank loans in June 1985, an increase of 1.2 percentage points from the previous year but considerably below the

9.0-percent rate for farm production loans at all banks (tables 15 and 16). The differential between these rates shows how even the limited diversification undertaken by these agricultural banks over the years has protected them somewhat from current farm

Table 15.--Estimated delinquent farm production loans as a percentage of total farm production loans, 1983-85 ^{1/}

Type of loan	Year		
	June 1983	June 1984	June 1985
	Percent		
Total	4.8	6.6	9.0
Past due 30-89 days and still accruing	1.3	1.5	1.7
Nonperforming	3.5	5.1	7.3
Past due 90 days or more and still accruing	1.3	1.5	1.7
Nonaccrual	2.1	3.5	5.2
Renegotiated	.1	.1	.4

^{1/} Data are estimates of national percentages for farm non-real estate loans. Estimates for June 1985 are based on reports from banks holding approximately 92 percent of such loans. Previously, only large banks, which hold about one-fourth of these loans, reported data for the nonaccrual and renegotiated categories of these loans. In order to ensure comparability, these two categories were estimated for nonreporting banks by Board of Governors of the Federal Reserve System research staff.

Source: "Farm Financial Experience and Agricultural Banking Experience," Statement by Emanuel Melichar, Senior Economist, Board of Governors of the Federal Reserve System, before the Subcommittee on Economic Stabilization of the Committee on Banking, Finance, and Urban Affairs, U.S. House of Representatives, Oct. 23, 1985.

Table 16.--Delinquent loans as a percentage of total loans by type of bank

Type of loan delinquency	Year					
	June 1983		June 1984		June 1985	
	Agricul-	Nonag	Agricul-	Nonag	Agricul-	Nonag
	tural	small	tural	small	tural	small
	banks	banks	banks	banks	banks	banks
		1/				
Percent						
Total	4.8	4.8	5.5	4.2	6.7	4.6
Past due 30-89 days and still accruing	2.0	2.2	2.1	2.0	2.2	2.2
Nonperforming--total	2.9	2.7	3.4	2.3	4.4	2.4
Past due 90 days and still accruing	1.6	1.3	1.6	1.0	1.6	.9
Nonaccrual	1.0	1.2	1.6	1.1	2.5	1.4
Renegotiated	.2	.2	.2	.2	.3	.1

^{1/} Banks with less than \$500 million in assets, which were not considered "agricultural" based on the FRB definition.

Source: Unpublished Board of Governors of the Federal Reserve System data, and also statement noted in table 15.

sector problems. As of June 1985, about 37 percent of the average agricultural bank's loan portfolio was composed of farm loans; these banks together held about 60 percent of all commercial bank-owned farm debt. That the majority of agricultural banks are under increased pressure is clear from comparing the trend in their total loan delinquency rates to those rates for nonagricultural small banks. As shown in table 16, these nonfarm banks exhibited moderately steady loan delinquency rates over the last 3 years with 4.6 percent of loans nonperforming at the end of the second quarter of 1985.

Examining net loan charge-offs together with delinquency rates gives a more complete picture of commercial bank difficulties. Biannual data on charge-offs as a percent of total loans, while exhibiting some seasonality, clarify the relative worsening of agricultural bank conditions (table 17). Net charge-offs at agricultural banks averaged 0.72 percent of total loans at the end of the first half of 1985, almost double a year earlier. Based on this increase and the 1984 yearend rate, net charge-offs could approach 2 percent of total loans by the close of 1985. If loan losses

exceed 2.5 percent of loans outstanding, it is likely that losses will begin to exceed income at the typical agricultural bank.

Net charge-offs at agricultural banks are concentrated geographically and in a minority of institutions. In five States—Colorado, Iowa, Missouri, Nebraska, and Oregon—charge-offs at agricultural banks exceeded 1 percent of total loans. On a more general level, loans have been deteriorating most rapidly in the Great Plains and Corn Belt. An examination of the distribution of agricultural banks by relative net charge-offs in the first half of 1985 reveals that 20.4 percent had net charge-offs above 1 percent of loans outstanding, up from 10.7 percent for the first half of 1984. These data indicate that a large proportion of agricultural banks had charge-off rates significantly below average.

While the average net charge-off rate at nonfarm small banks is increasing slightly, the rate is only about half that observed at agricultural banks. Net charge-offs represented about 0.60 percent of loans outstanding at the end of 1984 and 0.29

Table 17.—Net loan charge-offs by type of loan and type of bank, 1983–85 ^{1/}

Type of loan	Year				
	1983		1984		1985
	Q2	Q4	Q2	Q4	Q2
Percent					
Net loan charge-offs as a percent of total loans—agricultural banks	0.30	0.93	0.39	1.22	0.72
Net loan charge-offs as a percent of total loans—nonag small banks	.28	.66	.23	.60	.29
Net charge-offs of farm production loans as a percent of production loans—all insured commercial banks ^{2/}	NA	NA	.7	1.5	1.3

NA = Not available. ^{1/} Data represent conditions at the end of the period. ^{2/} Data are estimates of national charge-offs of farm non-real estate loans, based on reports from banks which hold about 92 percent of these loans. Additional uncertainty of these estimates arises because small banks report only charge-offs of "agricultural" loans as defined by each bank for its internal purposes. Banks first reported these data in the March 1984 Report of Income.

Sources: Melichar, Emanuel, "Agricultural Banking Experience, 1984," Board of Governors of the Federal Reserve System, May, 1985, and statement noted in table 15.

percent for the first half of 1985 at these more urban banks, not adjusted for seasonal factors. Moreover, the rising net charge-offs with relatively stable delinquency rates found at these banks presage a better future position relative to their agricultural counterparts, where both delinquencies and net charge-offs are increasing.

Net agricultural production loan charge-off rates at all banks, a relatively new data item on the call reports, have almost doubled to 1.3 percent of all agricultural production loans in the first half of 1985 relative to the first half of 1984. This is in agreement with total net loan charge-offs at agricultural banks.

Annual provisions for loan losses (set-aside accounts meant to cover impending loan charge-offs) rose at agricultural banks, as shown by the latest available nonseasonal data, to an average of 1.47 percent of total loans in 1984 from 1.09 percent in 1983 (table 18). Provisions for loan losses have been running higher than net charge-offs over the past 2 years, suggesting that agricultural bankers have been expecting to take more serious losses than actually occurred. This may be prudent planning against future losses given expected developments in the farm sector. It may also, however, portend higher losses in the future as it becomes more difficult to carry increased nonperforming loans on the books. In contrast, loan loss reserves of nonfarm small banks have remained stable over the period.

Agricultural banks' average rate of return on equity capital dropped 2 percentage points to 9.0 percent between 1983 and 1984 (latest available data) (table 19). Nonfarm small

banks did not show such signs of distress, with their average rate of return on equity capital remaining constant at 12 percent over the past 3 years (table 19). The absolute and relative declines found at agricultural banks may be explained by their relatively high loan loss rate, high proportion of nonperforming loans, and their need to increase their equity capital position for anticipated future loan losses.

In order to avoid the distortions resulting from the additions to equity capital made by agricultural banks, it is useful to consider the rate of return to total assets as an alternative measure of profitability. A similar result emerges, with this rate of return falling 0.3 of a percentage point to 0.7 percent in 1984. Small nonfarm banks also experienced a decline in their rate of return, but the drop was one-third that seen for agricultural banks. The rate of return was also higher at these other banks, averaging 0.8 percent for 1984. Prior to 1984, agricultural banks were more profitable than their nonfarm counterparts if rates of return to assets were compared; this is no longer the case regardless of the yardstick used.

In contrast to their poor profit record, agricultural banks were successful in increasing their capital reserves for the third consecutive year (table 19). Primary and secondary capital rose to a record 9.5 percent of assets in 1984, a full percentage point above the rate at small nonfarm banks. The capital ratio at nonagricultural small banks also increased between 1983 and 1984 by 0.1 of a percentage point, but this simply reversed a decline of similar magnitude between 1982 and 1983. These new primary and secondary capital measures, used in the capital adequacy

Table 18.--Annual provisions for loan and lease losses as a percent of total loans by type of bank, 1982-84

Type of bank	Year		
	1982	1983	1984
	Percent		
Agricultural banks	0.79	1.09	1.47
Nonag small banks	.77	.79	.77

Source: Melichar, Emanuel, "Agricultural Banking Experience, 1984," Board of Governors of the Federal Reserve System, May 1985.

Table 19.--Selected bank performance measures by type of bank, 1982-84 1/

Performance measure	Year		
	1982	1983	1984
	Percent		
Rate of return on equity capital			
Agricultural banks	14.0	11.0	9.0
Nonag small banks	12.0	12.0	12.0
Rate of return on total assets			
Agricultural banks	1.1	1.0	.7
Nonag small banks	.9	.9	.8
Capital as a percent of assets			
Agricultural banks	9.3	9.4	9.5
Nonag small banks	8.5	8.4	8.5

1/ Rate of return on equity is net income after taxes as a percent of the average of total equity capital at the beginning and end of the year. Rate of return on total assets is net income after taxes as a percentage of total assets on December 31.

Source: Melichar, Emanuel "Agricultural Banking Experience, 1984," Board of Governors of the Federal Reserve System, May 1985.

requirements introduced by the Federal bank regulatory agencies in 1984, include the allowance for loan losses. The increasing trend in capitalization rates improves agricultural banks' abilities to withstand the farm problems forecast for the coming years.

Different indicators of severe stress on individual banks reinforce the point made earlier that a minority of these institutions account for a disproportionate share of the problems faced by agricultural banks. On the other hand, both the number and proportion of agricultural banks experiencing serious difficulties have increased dramatically over the past 3 years. The two indicators most commonly used to identify banks whose future viability is in question are analyzed below.

The FRB has recently been identifying the most troubled institutions, called potentially vulnerable banks, as those with delinquent loans exceeding primary capital (equity capital plus loan-loss reserves). Past study has shown that a high proportion of banks that failed met this condition several months prior to failure. As of June 30, 1985, there were 689 potentially vulnerable banks; about 44 percent were agricultural banks (table 20). While the number of all banks in this category has increased from 419 to 689 over the last 3 years, most of the increase is attributable to newly troubled agricultural banks. The

number of potentially vulnerable agricultural banks rose from 96 to 302 over the same period.

An older, more established indicator of severe bank stress is the FDIC's official problem list. It is based on the CAMEL rating system, used in individual bank examinations. CAMEL represents the key attributes of a bank's condition for examination. They are: capital adequacy, asset quality, management quality, earnings, and liquidity. Each bank examined receives an overall rating based on its performance in these five categories ranging from 1 (sound in almost every respect) to 5 (high probability of failure). Banks with ratings of 4 (serious weaknesses and potential for failure) or 5 are placed on the FDIC problem list and referred to the appropriate supervisory authorities for administrative action as well as more frequent examinations.

As with potentially vulnerable agricultural banks, both the number and proportion of problem agricultural banks have increased dramatically. Agricultural banks accounted for almost 40 percent of the 1,055 banks on the problem list as of October 31, 1985 (table 21). This is a 17.1 percentage point increase in the proportion of agricultural problem banks over the past 3 years. Relative to 1983 levels, the number of problem agricultural banks has increased by a factor of four.

Table 20.—Potentially vulnerable commercial banks, 1983-85 1/

Type of bank	Year					
	1983		1984		1985	
	Q2	Q4	Q2	Q4	Q2	

Number (Percent)

Agricultural banks	96 (22.9)	133 (29.4)	195 (41.4)	239 (38.9)	302 (43.8)	
Nonagricultural banks	323 (77.1)	320 (70.6)	276 (58.6)	375 (61.1)	387 (56.2)	
Total banks	419 (100.0)	453 (100.0)	471 (100.0)	614 (100.0)	689 (100.0)	

1/ Potentially vulnerable commercial banks are defined here as those with past due and nonperforming loans greater than primary capital at the end of the quarter. Numbers in parentheses indicate percent of total potentially vulnerable banks at the end of the quarter.

Source: Division of Research and Statistics, Board of Governors of the Federal Reserve System.

Table 21.—FDIC classification of problem commercial banks by type of bank, 1983-85 1/

Type of bank	June 1983	Dec. 1983	June 1984	Dec. 1984	June 1985	Oct. 1985
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Number (Percent)

Agricultural banks	106 (22.0) 2/	146 (24.2)	231 (34.4)	288 (36.1)	334 (35.5)	413 (39.1)
All other banks	375 (78.0)	457 (75.8)	440 (65.6)	512 (63.9)	606 (64.5)	642 (60.9)
Total	481 (100.0)	603 (100.0)	671 (100.0)	800 (100.0)	940 (100.0)	1055 (100.0)

1/ FDIC agricultural bank definition used in this table. Problem mutual savings banks are excluded. Savings and loan associations are not regulated by the FDIC and thus do not appear on their problem list. Numbers in parentheses indicate percent of total problem list.

Source: Division of Research and Strategic Planning, Federal deposit Insurance Corporation.

Moreover, these banks are concentrated in 11 Midwestern States. Caution should be used when comparing the proportions of agricultural banks which are potentially vulnerable to the proportion on the FDIC problem list, because the FDIC uses the more stringent definition of agricultural banks. Using the FRB definition, the proportion of problem agricultural banks would be somewhat higher.

Agricultural bank failures, which perhaps most dramatically portray the problems being experienced by these lenders, have increased significantly over the past 2 years. While the proportion of agricultural banks has been fairly stable at about 35 percent of all banks over the past 3 years, the percentage of bank

failures that are agricultural increased dramatically from 15.9 in 1983 to 59.5 in the first 10 months of 1985 (table 22). As with other measures of agricultural bank stress, failed agricultural banks are concentrated in particularly hard-pressed farm regions. Agricultural bank failures in three regions, the Corn Belt, the Northern Plains, and the Southern Plains, represent almost three-quarters of all such failures over the past 3 years. Furthermore, over this period no agricultural banks failed in the Northeast and only two failed in the Southeast.

Failed agricultural banks have been small institutions, relative to both agricultural banks and commercial banks in general. The average failed agricultural bank in 1985 had \$22 million

Table 22.—Commercial bank failures by type of bank and by region, 1983-85 ^{1/}

Failed bank location	All banks					Agricultural banks ^{2/}				
	1983	1984	1985	Total	Pct. ^{3/}	1983	1984	1985	Total	Pct.
	Number				Pct.	Number				Pct.
United States	44	77	89	210	100	7	31	53	91	100
Region:										
Northeast	1	0	2	3	1.4	0	0	0	0	0.0
Lake States	1	5	5	11	5.2	0	2	5	7	7.7
Corn Belt	7	12	16	35	16.7	2	6	14	22	24.2
Northern Plains	3	13	20	36	17.1	2	10	18	30	33.0
Appalachian	13	13	5	31	14.8	0	2	1	3	3.3
Southeast	1	3	4	8	3.8	1	1	0	2	2.2
Delta States	1	4	1	6	2.9	1	2	0	3	3.3
Southern Plains	4	11	17	32	15.2	0	5	8	13	14.3
Mountain	4	5	11	20	9.5	1	3	4	8	8.8
Pacific	9	11	8	28	13.3	0	0	3	3	3.3

^{1/} Totals exclude mutual savings bank and savings and loan association failures as well as failures by banks located in U.S. possessions and territories. Failures for 1985 are as of October 11, 1985. ^{2/} Agricultural banks are those which had 17 percent or more of their loan portfolio in agricultural loans at the end of the year preceding failure. Counts may differ slightly from those published by the Federal Reserve Board due to slight definitional differences. ^{3/} Percentages are based on aggregations of banks for 1983-85.

Source: Calculated from information provided by the Federal Deposit Insurance Corporation and the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

in assets at the beginning of the year. At that time, the average viable agricultural bank had roughly \$35 million and the average viable commercial bank about \$117.5 million in assets.

Overall, the recent growth in commercial bank failures (agricultural and nonagricultural alike) appears to be a regional phenomenon, linked to the agricultural crisis and increased stress in some rural areas due to the uneven nature of the economic recovery. Over 97 percent of banks that failed since 1975 have been members of the FDIC, so most depositors' funds were fully protected.

Furthermore, relatively few agricultural bank failures resulted in the permanent closure of banking offices. In the vast majority of cases, the failed bank's offices were acquired and reopened by another commercial bank. This may be changing, however, as the FDIC is beginning to experience difficulty in locating acceptable banks willing to acquire failed institutions. Banks acquiring failed agricultural banks tend to be small, rural, agricultural, and headquartered within the same county as the failed institution. Thus, bank failures do not

appear to result in a wholesale shift of local credit market shares to large "outsider" bank institutions, although activity by chain bank organizations introduces some qualifications to this conclusion.

Farm Credit System

The Farm Credit System is organized into 12 districts for administration and service delivery purposes. Each district contains a Federal Land Bank, a Federal Intermediate Credit Bank (FICB), and a Bank for Cooperatives. There are 390 local Federal Land Bank Associations (FLBA's) linked with the 12 FLB's. The 12 FICB's provide short- and intermediate-term loans to 318 autonomous Production Credit Associations (PCA's) and about 144 other financial institutions. With three banks and the local FLBA's and PCA's in each of the 12 districts (plus the Central Bank for Cooperatives located in Denver, Colorado), the FCS in reality is a network of 37 banks and 708 associations (390 FLBA's and 318 autonomous PCA's) rather than one centralized lending entity as the name might imply. The following analysis focuses on the PCA's and the FLB's.

The year 1985 has been a difficult one for the PCA's and FLB's. The volume of PCA loans outstanding began to decrease in the last quarter of 1981 and has continued a downward trend with an accelerated rate of decline in 1985 (table 23). FLB loans outstanding increased during the 1980's through 1984, but began to decrease in 1985. PCA net earnings have been declining since 1981, with a \$10.3 million loss in 1984 and a \$149.0 million loss through the first three quarters of 1985 (table 23). PCA losses totaled \$143.1 million during the third quarter of 1985 alone. FLB net earnings have been declining since 1982, but no losses were incurred until 1985, when \$487.4 million was lost through September 30 (table 23). FLB losses totaled \$560.1 million in the third quarter of 1985 alone, after modest positive net earnings were recorded the first two quarters.

The FLB's and FLBA's on a combined basis are required by regulations to maintain a minimum allowance for loan losses (reserves) of 1 percent of outstanding loans. Additional amounts are permitted to be added to the allowance based upon the judgment of the individual associations. PCA's must maintain a minimum allowance for loan losses of 3.5 percent of outstanding loans and can divert a maximum of one-half of their annual earnings as a provision for loan losses. (The latter restriction is discontinued in 1986).

Provisions for loan losses (cash flow from earnings added to reserves) are necessary to ensure adequate allowances. These provisions are determined by revaluing the FCS loan portfolio to reflect expectations of the amount that will ultimately be recovered given the economic environment. The amount set up in the loan loss account, although indirectly influenced by historical recovery rates, is determined primarily by an evaluation of current market conditions and the impact that they will have on future recovery rates.

PCA allowance for loan losses declined from \$660 million on December 31, 1981, to \$348.7 million on September 30, 1985, as reserves decreased to cover losses (table 24). FLB reserves have expanded continuously throughout the 1980's and stood at \$915.6 million on September 30, 1985. PCA provision for losses has increased throughout the 1980's while those of the FLB's have fluctuated (table 24). In the first 9 months of 1985, however, FLB's increased their provision for loan losses to \$509.3 million to meet the increased inherent risk in their portfolio.

PCA net loan losses (charge-offs) have trended upward throughout the 1980's, but the movement became much more pronounced beginning in 1982 (table 24). PCA loan charge-offs were \$285.9 million in 1984 and \$342.2 million for the first three quarters of

Table 23.—Production Credit Association and Federal Land Bank loans outstanding, obligations, and net earnings, 1980-85

Year	Loans outstanding <u>1/</u>		Obligations <u>1/</u>		Net earnings	
	PCA <u>2/</u>	FLB <u>3/</u>	PCA <u>2/</u>	FLB <u>3/</u>	PCA <u>2/</u>	FLB <u>3/</u>
	:	:	:	:	:	:
Million dollars						
1980	20,281	38,399	32,700	10,300	276.1	367.7
1981	21,568	46,762	34,000	12,200	308.6	435.3
1982	21,128	50,952	33,100	7,500	260.9	597.6
1983	19,860	52,010	30,300	4,800	77.2	281.6
1984	18,383	52,261	28,300	4,300	-10.3	185.2
1985	16,434 <u>4/</u>	49,255 <u>4/</u>	NA	NA	-149.0 <u>5/</u>	-487.4 <u>5/</u>

NA = Not available. 1/ Year ending December 31 except where indicated. 2/ PCA represents national totals of the operations of all Production Credit Associations. 3/ FLB represents national totals of the operations of all Federal Land Banks. 4/ September 30 data. 5/ Year to date data for September 30.

Sources: Farm Credit Administration, Report of Operations, various issues; Summary Report of Condition and Performance of the Farm Credit System, Quarter Ending June 30, 1985; and unpublished FCA data.

1985. FLB net loan losses have risen throughout the 1980's, but the magnitude has lagged behind that experienced by the PCA's. FLB charge-offs jumped from \$9.9 million in 1983 to \$90.4 million in 1984 and \$279.3 million in the first 9 months of 1985. As farm financial stress increased, it appears that farmers first managed to keep FLB loans current even though they increasingly fell into delinquent status on shorter term PCA loans. But by 1985, the continuing stress in the sector led to FLB losses on a much higher level. FCS loan losses and delinquencies have varied among the 12 districts, with the most serious problems occurring in the Omaha, Spokane, and Wichita districts.

nonperforming loans now used by the FCA include formally restructured loans, other restructured and reduced-rate loans, other high-risk loans, and nonaccrual loans. Using this definition, 15.0 and 12.3 percent, respectively, of the outstanding loan volume of PCA's and FLB's were nonperforming on September 30, 1985.

It appears that FCS is moving to a system of enforcing more stringent accounting standards; any loan associated with a farm having cash flow problems and security whose current market value does not significantly exceed debt outstanding will be considered to require additional provisions for loan losses. This major change in FCS accounting practices to better identify debt at risk is consistent with how debt would be treated under generally acceptable accounting principles (GAAP).

The change should not increase the eventual losses, only the timing of their recognition. Once a loan is classified as other than performing and likely to remain nonperforming, GAAP requires that the assets securing the loan be revalued at current market value and sufficient loan loss provisions be set aside to cover the difference between the outstanding debt and the value of the security.

The problem loan experience of PCA's and FLB's during the 1980-85 period is detailed in table 25. The volume of nonperforming loans has grown rapidly, but it is not possible to do an accurate time series comparison because of the changing definitions employed by the regulatory agency, the Farm Credit Administration. It is important to note that the current definition of nonperforming loans is broader for the FCS than for commercial banks. The FCS definition of nonperforming loans includes a special high-risk loan category that is not required of commercial banks. Specifically, the four subcategories of

Table 24.--Production Credit Association and Federal Land Bank allowances for loan losses (reserves), provision for loan losses, and net loan losses, 1980-85

Year ^{1/}	Allowance for loan losses (reserves)		Provision for loan losses		Net loan losses (charge-offs)	
	PCA	FLB	PCA	FLB	PCA	FLB
Million dollars						
1980	602.6	390.0	97.9	60.5	22.4	0.1
1981	660.0	466.2	101.4	76.9	41.5	.8
1982	610.6	523.9	111.5	59.3	159.2	1.6
1983	563.0	532.7	197.1	17.9	236.6	9.9
1984	491.2	547.1	225.3	71.3	285.9	90.4
1985	348.7 ^{2/}	915.6 ^{2/}	234.6 ^{3/}	509.3 ^{3/}	342.2 ^{3/}	279.3 ^{3/}

^{1/} Year ending December 31 except where noted. ^{2/} September 30. ^{3/} January 1 through September 30.

Sources: Farm Credit Administration, Report of Operations, various issues; Statement of Donald E. Wilkinson, Governor, Farm Credit Administration, before the Subcommittee on Conservation and Credit of the House Committee on Agriculture, October 30, 1985; Summary Report of Condition and Performance of the Farm Credit System, Quarter Ending June 30, 1985; and unpublished FCA data. Farm Credit Banks Funding Corporation, Farm Credit Banks Reports to Investors, various issues.

Table 25.—Production Credit Association and Federal Land Bank problem loans and acquired property, 1980-85

Year ^{1/}	Problem loans ^{2/}		Acquired property ^{3/}	
	PCA	FLB	PCA	FLB
Million dollars				
1980	80 ^{4/}	85 ^{5/}	29.2	4.5
1981	147 ^{4/}	178 ^{5/}	31.5	8.2
1982	1,301 ^{6/}	510 ^{5/}	91.8	30.3
1983	2,051 ^{6/}	839 ^{7/}	149.4	115.8
1984	2,096 ^{8/}	3,985 ^{8/}	182.3	313.8
1985	2,466 ^{8/9/}	6,076 ^{8/9/}	241.6 ^{9/}	674.7 ^{9/}

^{1/} Year ending December 31 except where indicated. ^{2/} Definitions have changed through the years -- note individual footnotes for details for each year in question. Moreover, until 1984 no guidelines were available to assure that reporting standards for loan delinquency information were consistently applied across the 12 Farm Credit Districts. ^{3/} Net acquired property which is defined as acquired property less allowance for losses and accumulated depreciation. Net acquired property is a stock concept with the property valued at current market value. ^{4/} Loans in the process of liquidation only. ^{5/} Delinquent principal and advances and loans in the process of foreclosure. ^{6/} Loans in the process of liquidation and delinquent loans only. In 1982 and 1983 only 10 and 11 of the 12 Farm Credit Bank Districts, respectively, reported PCA loan delinquencies. ^{7/} Delinquent principal and advances and loans in the process of liquidation. ^{8/} Nonperforming loans (restructured, other restructured and reduced rate, other high risk, and nonaccrual loans). ^{9/} September 30 data.

Sources: Farm Credit Administration, *Report of Operations*, various issues; Statement of Donald E. Wilkinson, Governor, Farm Credit Administration, before the Subcommittee on Conservation and Credit of the House Committee on Agriculture, October 30, 1985; Summary Report of Condition and Performance of the Farm Credit System, Quarter Ending June 30, 1985; and unpublished FCA data.

The process of revaluing the assets securing the debt for nonaccrual loans constitutes a major reason for the dramatic increase in loan loss provisions in 1985. The decline in land values, the main form of security, has resulted in major shortfalls between outstanding principal and interest, and the security value for nonaccrual loans. Under the new accounting system, a significant increase in loans classified as being at risk is expected for the fourth quarter of 1985.

One important reason for the rise in the volume of nonperforming loans is the reduced willingness of the FCS to refinance borrowers who are in financial difficulty. This reflects the tightening of requirements and reduced ability of the system to exercise forbearance. Resources of the system and projected future conditions for the sector suggest that many farmers in trouble will not be able to repay current debts, and that further lending to

them will only delay needed adjustments. Thus, loans that might previously have been rolled over are now likely to be classified as nonperforming, in recognition that farmers are unlikely to experience increased returns and make payments in the near future.

Property acquired by PCA's and FLB's through foreclosure and in lieu of foreclosure has increased considerably in recent years (table 25). PCA-acquired property jumped from \$29.2 million in December 1980 to \$241.6 million in September 1985. FLB-acquired property was only \$30.3 million as recently as December 1982, but it jumped to \$674.7 million by September 1985.

Recent years have seen considerable FCS structural change with much merger activity among PCA's and FLBA's, and additional mergers are underway (table 26). In a merger or liquidation, one or more associations are absorbed by another association with the

Table 26.—Number of associations and number of loans outstanding, 1980–85

Year ^{1/}	Associations		Loans outstanding	
	PCA	FLBA	PCA	FLBA
	Number		Number	
1980	424	492	372,371	593,634
1981	423	488	380,186	646,372
1982	420	472	382,810	667,912
1983	403	462	340,381	662,276
1984	370	435	337,400	652,800
1985	318 ^{2/}	390 ^{2/}	323,800 ^{3/}	639,300 ^{3/}

^{1/} Year ending December 31 except where noted. ^{2/} October 1 data. ^{3/} June 30 data.

Sources: Farm Credit Banks Funding Corporation, Farm Credit Banks Report to Investors, various issues, and the Farm Credit Administration.

latter retaining its corporate existence while the former cease to exist as legal entities.

PCA mergers are usually stress related, while FLBA mergers are largely for economy and efficiency. There is much more pressure for efficiency for both PCA's and FLBA's as they attempt to cope with the future financial situation for agriculture. Mergers mean fewer local offices serving farmers. These structural changes come at a time when PCA's and FLBA's are undergoing a net loan payback position. Both PCA's and FLBA's have had a downward trend in the number of loans outstanding since 1982 (table 26). Fewer local offices may help to further erode the FCS's future competitive position vis-a-vis other lenders in many rural areas.

The year 1985 also saw further FCS structural change with the creation of two new entities. The Farm Credit Corporation of America was chartered by FCA to serve as a central headquarters for FCS banks in each of the 12 districts. Formerly each district operated quite independently. Headquartered in Denver, Colorado, the corporation is intended to develop standardized policies, set and enforce financial reporting standards, and oversee system capital management including the administration of loss-sharing agreements among Farm Credit Banks. The corporation also serves as the central liaison for the FCS, presenting system views and positions, and overseeing financial disclosure to Federal and State legislators, regulatory officials,

investors, and the public. The corporation is headed by a board of directors comprised of one from each of the 12 Farm Credit districts.

The second entity is the Farm Credit Capital Corporation headquartered in Wichita, Kansas. The Capital Corporation was chartered to manage the liquidation of nonperforming, heavily discounted loan assets acquired from a district by the FCS. The Corporation was capitalized with \$135 million provided by 35 of the 37 Farm Credit Banks. Thus far, it has been involved in assisting the Omaha and Spokane FICB's. The Capital Corporation was rechartered under the provisions of the Farm Credit Amendments Act of 1985, discussed earlier.

Farmers Home Administration

FmHA's farmer loan programs include the provision of credit to owners and tenant-operators of family-sized farms, assistance to young and limited-resource farmers, aid to farmers suffering economic and natural disasters, and the development of water and conservation facilities. A longstanding principle of FmHA has been the provision of credit to those farmers unable to obtain funds elsewhere at reasonable rates and terms. FmHA, as the lender of last resort, would be expected to have a loan portfolio dominated by less creditworthy operators. Furthermore, demand for FmHA loans would be expected to have increased as the farm sector's financial problems grew in the 1980's.

The number of FmHA farmer program loans and amount of principal outstanding on June 30 for 1980 through 1985 are shown in table 27. Both the number of loans and principal outstanding have shown growth, but the rate of expansion in the number of loans slowed beginning in 1982. The total number of farmer program borrowers was 269,122 on June 30, 1982, and 271,943 on June 30, 1985. It can be hypothesized that as the farm economy began to deteriorate in the early 1980's, borrowers already on FmHA's books required additional financing, thus increasing the number of loans and principal outstanding more rapidly than the number of borrowers. Initially, commercial lenders showed considerable forbearance toward their own borrowers in financial stress. As the situation worsened, the desire and ability of private lenders to finance financially troubled farmers lessened, increasing the pool of candidates for FmHA loans.

FmHA considers a loan delinquent if \$10 or more is 15 days or more past due. This standard is far more stringent than those employed by other farm lenders. Moreover, the date of observation during the year affects the magnitude of the delinquency problem considerably. Most FmHA farmer program loans involve a single annual payment with the payment due each year on January 1. Delinquencies peak each year in January, then decrease throughout the year. In 1984, for example, 43.2 percent of farmer borrowers were behind schedule on January 31, but this had declined to 28.5 percent on December 31.

By contrast, in 1985, some 44.9 percent were delinquent on January 31 and 28.5 percent on September 30. FmHA farmer program delinquencies are shown at midyear for the 1980-85 period in table 27. The share of loans delinquent increased from 16.7 to 36.3 percent between 1980 and 1985; the percent of the principal delinquent increased from 4.6 to 23.0 percent.

FmHA farmer program delinquencies for the nine farmer programs are shown in table 28 for September 30, 1985, the latest available data. On that date, 31.0 percent of the loans and 20.8 percent of the principal outstanding were delinquent. The four major farmer programs—farm ownership (FO), operating loans (OL), emergency disaster (ED), and economic emergency (EE)—are identified with asterisks in table 28. Among these four, the EE program had the largest proportion of its loans delinquent (42.8 percent) and the ED program had the largest share of principal in arrears (37.1 percent). ED loans accounted for 62.8 percent of total delinquent principal for all nine programs; EE accounted for 16.5 percent.

A total of 2.8 percent of farmer program borrowers gave up farming because of financial difficulties in fiscal 1983, 2.5 percent in fiscal 1984, and 1.7 percent in fiscal 1985. Detailed information on fiscal 1984 and fiscal 1985 is given in table 29. The evidence shows that FmHA has exercised a high degree of forbearance, and that most FmHA borrowers left their occupation through unforced

Table 27.—Farmers Home Administration farmer program delinquencies, June 30, 1980, to June 30, 1985

Date	Number of active cases 1/ (caseload)			Principal outstanding		
	Delinquent			Delinquent		
	Total	Total	Proportion	Total	Amount	Share of Total
	Number		Pct.	Mil. dollars		Pct.
June 30, 1980	372,046	62,200	16.7	18,192.4	827.6	4.6
June 30, 1981	423,134	84,955	20.1	22,905.4	1,592.9	7.0
June 30, 1982	434,460	120,166	27.7	24,137.4	2,933.6	12.2
June 30, 1983	436,611	146,251	33.5	24,410.2	4,131.8	16.9
June 30, 1984	446,855	158,237	35.4	25,369.0	5,397.5	21.3
June 30, 1985	455,561	165,344	36.3	27,786.3	6,384.8	23.0

1/ Duplicated cases because some borrowers have loans under several different programs. The number of cases is the number of loans, not the number of borrowers.

Source: Farmers Home Administration, 616 report, various issues.

Table 28.--Farmers Home Administration farmer program delinquencies by program, September 30, 1985

Farmer programs (Individual loans)	Number of active cases <u>1/</u> (caseload)			Principal outstanding		
	Delinquent			Delinquent		
	Total	Total	Proportion	Total	Amount	Share of Total
	Number		Percent	Mil. dollars		Percent
* Farm ownership (FO)	124,909	26,007	20.8	7,449.0	344.2	4.6
Farm ownership -- nonfarm enter- prises	1,361	345	25.4	52.3	3.7	7.0
* Operating loans -- excluding youth (OL)	132,042	37,809	28.6	6,157.9	821.2	13.3
Operating loans -- youth	1,769	576	32.6	5.7	1.8	30.8
* Emergency disaster (ED)	121,709	47,276	38.8	9,862.2	3,656.6	37.1
* Economic emergency (EE)	56,605	24,245	42.8	4,140.1	963.1	23.3
Recreation	210	53	25.2	13.3	1.3	9.5
Soil and water	16,441	4,465	27.2	302.1	33.6	11.1
Economic oppor- tunity	431	399	92.6	.5	.5	97.0
Total	455,477 <u>1/</u>	141,175 <u>1/</u>	31.0 <u>1/</u>	27,983.0	5,825.8	20.8

1/ Duplicated cases because some borrowers have loans under several different programs. The number of cases is the number of loans, not the number of borrowers. On September 30, 1985, there were 278,982 unduplicated borrowers under FmHA farmer programs of which 79,584 (28.5 percent) were behind schedule in making payments.

Sources: Farmers Home Administration, Farm and Housing Activity Report for September 30, 1985 and 616 report for September 30, 1985.

procedures. In fiscal 1985, 16.9 percent left due to foreclosure; 21.2 percent were foreclosed in 1984 (table 29). FmHA foreclosed on only 0.03 percent of its farmer program borrowers in 1985, or 1.9 percent of those who discontinued. This was a decline in FmHA foreclosures from the previous 2 fiscal years. Bankruptcy preceded 17.3 percent of the discontinuations in fiscal 1985, compared with 16.7 percent in fiscal 1984. Voluntary sales or conveyances to FmHA preceded over 65 percent of the borrower discontinuations in fiscal 1985.

In September 1984, the Administration announced a special credit initiative designed to deal with farm financial stress. The Farm Credit Initiative (FCI) was composed of two parts, the Debt Set-Aside Program (DSA) and the Debt Adjustment Program (DAP).

The DSA allows qualified FmHA borrowers to defer, without interest, up to 25 percent (or \$200,000, whichever is less) of

their indebtedness for a period of 5 years. Loans made under all individual farmer programs are eligible, as are rural housing loans made for farm service buildings. To qualify for the program the borrower must show that a positive cash flow cannot be achieved without some action being taken by the borrower, lender, or both. For example, if the borrower can achieve a positive cash flow by rescheduling and reamortizing his debt at the limited resource rate (if applicable), the set-aside provision does not apply. Likewise, if disposing of a borrower's "nonessential assets" will result in a positive cash flow, the set-aside provision will not apply. Finally, it must be shown that no more than the 25 percent/\$200,000 maximum set-aside is needed for the borrower to achieve a positive cash flow. A borrower can qualify for only one set-aside and the terms of the set-aside cannot be changed once granted.

As of September 30, 1985, FmHA had received 108,710 requests for set-asides (table

Table 29.--Farmers Home Administration farmer program borrowers discontinuing farming, fiscal 1984-85

Borrower category	Fiscal 1984		Fiscal 1985	
	Number	Percent	Number	Percent
Active farmer program borrowers	273,197	100.0	278,892	100.0
Total borrowers who discontinued farming due to financial difficulties	6,713	2.5	4,695	1.7
Discontinued borrowers who did so:				
a) Under bankruptcy	1,124	16.7	811	17.3
b) With FmHA foreclosure	356	5.3	89	1.9
c) With other foreclosure	1,066	15.9	703	15.0
d) With voluntary conveyances to FmHA	1,409	21.0	1,090	23.2
e) With transfer and assumption to others	571	8.5	169	3.6
f) With sales, other than foreclosure	2,187	32.6	1,833	39.0

Source: Farmers Home Administration, *Farm and Housing Activity Report*, various issues.

30). At that time, FmHA had 278,892 active borrowers, meaning that 39 percent of all FmHA borrowers sought to take advantage of the DSA program. Through September 30, 14.5 percent of the applicants had been granted set-asides (table 30). Most received the maximum set-aside possible. Over 60 percent of the successful applicants were rescheduled at the lower, limited resource interest rate. Finally, approximately 19 percent of the applicants were rejected because they could not achieve a positive cash flow projection given all the options available or could not project an ability to repay the debt after the 5 year set-aside period had expired.

The DAP is designed to provide assistance to non-FmHA borrowers. To participate in the DAP, a commercial lender must agree to write off a minimum of 10 percent of the interest or principal due on existing loans. The amount written off must allow the borrower to project a positive cash flow (including living expenses and tax liabilities). In return for writing off this portion of the amount due, the lender receives a guarantee from FmHA for up to 90 percent of any loss of principal on the loan. The Administration allocated \$650 million for this loan guarantee program.

A total of 728 DAP applications had been received and 426 approved through September 30, 1985 (table 30). Guarantees of \$61.4 million in debt had been issued. Roughly half of all applications and approvals were in the Corn Belt; over 75 percent were in the Corn Belt and Northern Plains regions combined.

Life Insurance Companies

The year 1985 saw growing financial stress within the farm mortgage loan portfolio held by life insurance companies. Historically, farm real estate mortgages have been an important life insurance company investment and a key source of real estate loan funds for the farm sector. Despite the declining role of life insurance farm lending since 1970, it remains an important source of funds. Nearly 64,000 farm mortgage loans were outstanding on June 30, 1985. Depending on the year, some 73-78 companies hold approximately 80-84 percent of all mortgages (farm and nonfarm) held by life insurance companies. The farm real estate loan portfolio is held by fewer than 20 companies.

The delinquency rates, based on the number of loans delinquent as a percentage of all such loans in the category, were lower for

Table 30.--Farmers Home Administration Farm Credit Initiative (FCI)
requests for assistance through September 30, 1985

<u>Debt Set-Aside (DSA) Program</u>	<u>Number</u>
Requests for assistance	108,710
Received set-asides	15,794
Rescheduled/reamortized	29,196
Adequate cash flow (includes asset sales)	10,678
Requests withdrawn	26,461
Did not receive assistance because:	
- Inadequate cash flow (even with assistance)	21,539
- Turned down by county committee	4,622
Requests still on hand	420
 <u>Debt Adjustment Program (DAP)</u>	 <u>Number</u>
Requests for guarantees	728
Guarantees approved	426
Requests not approved	164
Requests withdrawn	59
Applications on hand	79
 <u>Dollar amount guaranteed</u>	 <u>Dollars</u>
- operating loans	\$ 54.6 million
- <u>ownership loans</u>	<u>6.8 million</u>
 Totals	 \$ 61.4 million

Source: Farmers Home Administration.

life insurance company farm mortgage loans than for their nonfarm counterparts throughout the 1970's. The farm delinquency rate first exceeded the nonfarm rate in June 1981. It has done so continuously since June 1982, with a rate of 6.26 percent on June 1985 compared with a nonfarm rate of 1.15 percent (table 31). The June 1985 farm mortgage delinquency value is the highest recorded since the American Council of Life Insurance initiated the survey in 1954. There were 3,996 delinquent life insurance company farm mortgage loans on June 30, 1985.

The delinquency rates by amount of loans outstanding are proportionately even higher for farm mortgages, because they are larger on average. The farm mortgage rate of delinquency as a percent of outstanding loans has exceeded the nonfarm rate continuously since June 1978. It rose to 14.98 percent by June 1985, also a record high for the series, and only the second time the series has been in double digits (table 31). The nonfarm mortgage delinquency rate in terms of dollar value edged up slightly to 1.09 percent in June 1985. Farm delinquency rates typically fall from June to December as a result of seasonal

factors; thus it remains unclear whether the rates have peaked. Some \$1.76 billion of life insurance company farm mortgage loans were delinquent on June 30, 1985.

A more restrictive measure of farm lending problems for life insurance company mortgage loans than delinquencies is loans in the process of foreclosure. Farm mortgage foreclosure rates by number of loans have exceeded the nonfarm rates since June 1979, and stood at 2.16 percent in June 1985 (table 32). The farm rate was nearly double that recorded a year earlier. A total of 1,381 life insurance company farm mortgage loans were in the process of foreclosure on June 30, 1985.

Farm mortgage foreclosure rates by amount of loans outstanding have exceeded nonfarm rates since June 1978 and have reached ever higher levels in the 1980's (table 32). On June 30, 1985, 6 percent of the amount outstanding for farm loans was in the process of foreclosure, a new series peak. A total of \$705.4 million in life insurance company farm mortgage loans was in the process of foreclosure on June 30, 1985.

Table 31.--Life insurance company mortgage loan delinquencies, 1980-85 1/

End of month	Rates by number of loans		Rates by amount		Number of companies 2/	
	Nonfarm	Farm	Nonfarm	Farm		
	mortgages	mortgages	mortgages	mortgages		
	----- Percent -----					
					-- No. --	
1980	June	.95	.79	.79	2.82	77
	Dec.	1.06	.54	.89	2.00	76
1981	June	.89	1.02	.73	4.04	77
	Dec.	1.11	.77	.69	3.69	78
1982	June	1.03	1.70	.87	6.45	78
	Dec.	1.07	1.66	.83	6.40	77
1983	June	1.04	2.99	1.04	9.82	75
	Dec.	1.10	2.63	.90	8.27	75
1984	June	1.17	3.88	.93	10.38	75
	Dec.	1.24	3.78	.90	9.58	76
1985	June	1.15	6.26	1.09	14.98	74

1/ Delinquent loans (including loans in the process of foreclosure). Delinquent loan is a nonfarm mortgage with interest payments in arrears at least two months (60 days if other than a monthly pay) or a farm loan with interest in arrears more than 90 days. 2/ Number of companies reporting. Reporting companies account for 80-84 percent of the mortgages held by U.S. life insurance companies depending on the date of the survey.

Source: American Council of Life Insurance, Investment Bulletin, various issues.

Table 32.--Life insurance company mortgage loans in the process of foreclosure, 1980-85

End of month	Rates by number of loans		Rates by amount		Number of companies <u>1/</u>	
	Nonfarm	Farm	Nonfarm	Farm		
	mortgages	mortgages	mortgages	mortgages		
	----- Percent -----					
					-- No. --	
1980	June	.08	.13	.18	.57	77
	Dec.	.09	.17	.17	.72	76
1981	June	.11	.25	.15	1.18	77
	Dec.	.12	.28	.23	1.20	78
1982	June	.12	.37	.24	1.63	78
	Dec.	.16	.63	.29	2.41	77
1983	June	.18	.87	.29	2.60	75
	Dec.	.16	.89	.31	2.60	75
1984	June	.16	1.14	.30	2.97	75
	Dec.	.16	1.75	.18	4.54	76
1985	June	.17	2.16	.28	6.00	74

1/ Number of companies reporting. Reporting companies account for 80-84 percent of the mortgages held by U.S. life insurance companies depending on the date of the survey.

Source: American Council of Life Insurance, Investment Bulletin, various issues.

The number and dollar amount of farm and nonfarm loans actually foreclosed during the 1980-85 period are shown in table 33. Each year during the 1980's has shown an increase in farm mortgage foreclosures.

Beginning in 1982, the dollar amount of farm mortgage loans foreclosed has exceeded that for nonfarm mortgages in each year. Completed farm foreclosures during all of 1984 totaled \$289.3 million; during the first half of 1985 they were \$240.6 million.

Table 33.--Life insurance company mortgage loans foreclosed, 1980-85 ^{1/}

Year	:	Nonfarm mortgages	:	Farm mortgages	
	:		:		
		<u>Number</u>	<u>Thou. dollars</u>	<u>Number</u>	<u>Thou. dollars</u>
1980		549	63,237	26	18,160
1981		552	58,491	47	55,741
1982		760	131,392	167	170,310
1983		868	114,993	306	347,002
1984		1,024	242,428	475	289,251
1985 2/		476	132,288	425	240,641

^{1/} Loans foreclosed include those for which title to the property or entitling certificate was acquired during the period shown; loans assumed by, or awaiting transfer to, the FHA or VA; delinquent cases resulting in loss of title to the mortgagor; and loans subject to redemption. ^{2/} January 1 through June 30.

Source: American Council of Life Insurance, Investment Bulletin, various issues.

Appendix 1. Net Cash Income by Type of Farm

Although the projected aggregate net cash income for 1985 shows an increase of 2.2 percent from 1984, individual farm operations behave differently (appendix table 1.1). Net cash income to dairy producers increased 16 percent to \$6.4 billion, and that for poultry and egg farms decreased 14.1 percent to \$3.4 billion. The change for crop-producing operations ranged from a 10.2-percent increase for horticultural specialty farms to a 15-percent drop for vegetable and melon farms. In 1985 net cash income to livestock operations increased 6 percent overall to \$15 billion.

Cash expenses for all farm operations decreased 4 percent from 1984 to \$109.6 billion. The largest decreases for livestock farms were realized by poultry and egg, and dairy producers: 5.9 and 4.7 percent,

respectively. While poultry and egg operations experienced the largest reduction, they also had the greatest decrease in net cash income. This decline can be partially explained by their more-than-offsetting 8.5-percent reduction in 1985 gross cash income. Other livestock operations which experienced declining net cash income in light of declining cash expenses are cattle, sheep, and hog farms.

Net cash income estimates for all crop farms in 1985 increased 2.2 percent from 1984 to \$40.1 billion. This overall increase is due to decreases in cash expenses, and increases in gross cash income for most crop producers. However, tobacco, vegetable and melon, and fruit and tree nut farms show declines in net cash income of 9.7, 15, and 4.8 percent, respectively. Of all crop-producing farms, those benefiting from increases in gross cash income were cotton, other field crop, and horticultural specialty farms.

Appendix table 1.1.--Distribution of income by type of farm, 1984 and 1985

Item	Unit	Total, all farms	Total, crop farms	Cash grain farms 2/	Cotton farms	Tobacco farms	Other field crop farms 3/	Vegetable and melon farms	Fruit and tree nut farms	Horticultural specialty farms	Total livestock farms	Cattle, hog, and sheep farms 2/	Dairy farms	Poultry and egg farms	Animal specialty farms	General livestock farms 3/
Number of Farms																
1984	Thousands	2,333	1,073	601	22	135	105	32	88	30	1,260	945	172	44	68	31
1985 (projected)	Thousands	2,285	1,053	589	21	132	103	31	86	30	1,232	925	168	43	66	30
Percentage change		-2.0%	-1.9%	-2.0%	-4.6%	-2.2%	-1.9%	-3.1%	-2.3%	0.0%	-2.2%	-2.1%	-2.3%	-2.3%	-2.9%	-3.2%
Cash receipts																
1984	\$ Millions	150,264	75,024	40,025	4,081	2,923	6,254	6,501	6,281	4,953	75,240	39,807	19,844	12,481	1,736	1,372
1985 (projected)	\$ Millions	146,495	73,889	39,721	4,148	2,773	6,071	5,887	6,182	5,228	72,606	38,033	20,070	11,424	1,723	1,356
Percentage change		-2.5%	-1.5%	-0.8%	1.6%	-5.1%	-2.9%	-9.4%	-1.6%	5.6%	-3.5%	-4.5%	1.1%	-8.5%	-0.8%	-1.2%
Gov. Payments 1/																
1984	\$ Millions	8,430	7,356	6,009	782	60	141	61	20	4	1,074	820	171	32	3	48
1985 (projected)	\$ Millions	8,127	7,115	5,626	923	57	134	64	22	4	1,012	772	160	30	33.3%	46
Percentage change		-3.6%	-3.3%	-6.4%	18.0%	-5.0%	-5.0%	4.9%	10.0%	0.0%	-5.8%	-5.9%	-6.4%	-6.3%		-4.2%
Other farm-related income																
1984	\$ Millions	3,046	2,789	476	52	33	1,784	67	50	7	257	187	42	13	5	10
1985 (projected)	\$ Millions	3,200	3,092	270	34	30	2,295	67	16	3	108	82	12	8	0	6
Percentage change		5.1%	10.9%	-43.3%	-34.6%	-9.1%	28.6%	0.0%	-68.0%	-57.1%	-58.0%	-56.2%	-71.4%	-38.5%	-100.0%	-40.0%
Gross cash income																
1984	\$ Millions	153,310	77,813	40,501	4,133	2,956	8,038	6,568	6,331	4,960	75,497	39,994	19,886	12,494	1,741	1,382
1985 (projected)	\$ Millions	149,695	76,981	39,991	4,182	2,803	8,366	5,954	6,198	5,231	72,714	38,115	20,082	11,432	1,723	1,362
Percentage change		-2.4%	-1.1%	-1.3%	1.2%	-5.2%	4.1%	-9.4%	-2.1%	5.5%	-3.7%	-4.7%	1.0%	-8.5%	-1.0%	-1.5%
Cash expenses																
1984	\$ Millions	114,081	53,507	32,489	2,772	1,962	3,619	2,755	4,611	2,257	60,574	35,244	14,381	8,585	1,184	1,180
1985 (projected)	\$ Millions	109,599	51,893	31,289	2,699	1,905	3,522	2,713	4,561	2,252	57,706	33,657	13,698	8,075	1,146	1,130
Percentage change		-3.9%	-3.0%	-3.7%	-2.6%	-2.9%	-2.7%	-1.5%	-1.1%	-0.2%	-4.7%	-4.5%	-4.8%	-5.9%	-3.2%	-4.2%
Net cash income																
1984	\$ Millions	39,229	24,306	8,012	1,361	994	4,419	3,813	1,720	2,703	14,923	4,750	5,505	3,909	557	202
1985 (projected)	\$ Millions	40,096	25,088	8,702	1,483	898	4,844	3,241	1,637	2,979	15,008	4,458	6,384	3,357	577	232
Percentage change		2.2%	3.2%	8.6%	9.0%	-9.7%	9.6%	-15.0%	-4.8%	10.2%	0.6%	-6.2%	16.0%	-14.1%	3.6%	14.9%

1/ Includes PIK entitlements. 2/ Includes farms, ranches, and feedlots. 3/ Includes farms from which livestock sales account for 50 percent or more of total receipts

Appendix 2. Comparison of Debt Estimates

The debt figures carried in the balance sheet for December 31, 1984, are greater than those reported from USDA's Farm Costs and Returns Survey. The difference amounts to \$92.4 billion or 43 percent of the balance sheet debt (appendix table 2.1). Much of this difference can be explained by the conceptual differences underlying the debt figures from the two sources. The balance sheet debt is defined as all loans outstanding that are secured by farm real estate, including loans on the farmer's dwelling if it is located on the farm, plus all non-real estate farm loans. These are defined by each lender and definitions vary. In contrast, the FCRS asks farmers to list only their farm business debt.

There are six components comprising the \$92.4 billion difference between the balance sheet debt and the survey debt, three of which are caused by definitional differences. The three definitional differences are: the debt of farmers on farm dwellings, the farm debt of landlords, and the debt defined as farm sector debt but used for nonfarm purposes. These three sources account for a minimum of \$31 billion, or one-third of the total discrepancy. The debts on these three components are carried in the balance sheet but are not picked up in the FCRS.

The \$8 million debt on farmers' dwellings is calculated by subtracting the balance sheet real estate debt, excluding operator households. The actual dwelling values for the balance sheet are based on the ratio of the value of farmers' dwellings to total land and building values obtained from the 1979 Farm Finance Survey. Since that survey was conducted, farm real estate values have fallen sharply but values for urban homes have increased. While it is likely that the value of rural residences has lagged behind that of urban residences, it is also likely that the value of rural residences has increased since 1979. This would cause the ratio of rural farmers' dwelling to total farm real estate to increase. Therefore, \$8 billion would be a minimum value for operator's dwellings.

The second component of the debt figures caused by definitional differences is debt held by nonoperator landlords. The ratio of landlord farm debt to farm operator business

debt from the 1979 Farm Finance Survey is 10.5 percent. This figure, when applied to the 1984 FCRS farm operator business debt, results in \$13 billion for landlord's share of debt.

Several analyses have concluded that the landlord's share of debt was underreported on the Farm Finance Survey. If so the landlord would hold a larger amount than the \$13 billion used in this analysis. The 1982 Census of Agriculture indicates more farmland being rented than in 1978. Therefore, landlords' share of debt may be larger than commonly assumed.

The third definitional difference in debt is the debt held by operators for nonfarm purposes. The balance sheet defines debt based on the collateral for the loan instead of the purpose of the loan. For example, if farmers are securing loans on farm real estate and using these loans to educate their children, then the loans are counted as farm real estate debt in the balance sheet, but not as a farm business debt in the FCRS. Debt for nonfarm purposes held by farm operators was estimated by using figures from the 1979 Farm Finance Survey, which indicated that total debt held by farm operators was 8.8 percent greater than their farm debt. This percentage was applied to the FCRS figure for farm operators' business debt.

The fourth and fifth explanations are due to underreporting of operators' debt on the FCRS. Survey data on CCC loans outstanding was far too low. Respondents probably reported only CCC loans outstanding from the current year's crops instead of the total loans outstanding of \$8.7 billion carried by ASCS (appendix table 2.2). The FCRS understates loans for small farmers since the survey is geared to commercial farms with sales over \$40,000.

The above five factors explain \$47 billion of the \$92 billion difference in debt between the balance sheet and the FCRS. The residual discrepancy remains unexplained. A large portion of the residual discrepancy could lie with the estimate of debt held by individuals and others (appendix table 2.2). With the exception of CCC, and individuals and others, the ratio of the balance sheet debt to the FCRS debt is fairly constant, around 1.5. If this ratio also holds for individuals and others,

then this implies that the balance sheet debt for this category is \$20 million too high. This is possible since we have little information for estimating debt owed to individuals and others.

Research will be initiated in 1986 to clarify the balance sheet debt estimates. It is

expected that the debt associated with farm operator dwellings, nonfarm debt of farm operators, and nonoperator landlord debt will increase. However, the largest adjustment may be the reduction in farm sector debt due to overestimation of the debt owed to individuals and others.

Appendix table 2.1.--Reconciliation of the December 31, 1984 farm debt figures

Item	Amount
	Millions
1. Balance sheet debt including farm households	\$212,549
2. Debt from Farm Costs and Returns Survey	120,198
3. Difference	92,351
Balance sheet debt (including farm households)	212,549
- Debt on farm dwellings	8,722
- Landlord debt	12,680
- Operator debt for nonfarm purposes	10,577
Subtotal for definitional differences	31,979
- Underreporting of CCC debt in FCRS	7,038
- Underreporting of small farms' debt by FCRS	9,000
Subtotal for explained differences	48,017
= Unexplained residual discrepancy	44,334

Appendix table 2.2.--Comparison of December 31, 1984 farm debt

Lender	Farm Costs and Returns Survey (FCRS)	Balance Sheet (BS)	Ratio of BS to FCRS
	- - - Million dollars - - -		Percent
Commercial banks	33,862	49,919	1.47
Federal land banks	30,020	49,103	1.64
Production Credit Association	11,888	17,925	1.51
Farmers Home Administration	16,211	25,664	1.58
Commodity Credit Corporation	1,681	8,719	5.19
Individuals and others	26,537	61,219	2.31
Total	120,198	212,549	1.77

Appendix table 3.--Real estate farm debt excluding households, December 31

Year	Debt owed to reporting institutions					Individuals and others	Total
	Federal	Life	All	Farmers	Total		
	land banks	insurance	operating	Home			
		companies	banks	Administration			
<u>Million dollars</u>							
1972	8,165	5,174	4,246	2,547	20,132	11,607	31,739
1973	9,849	5,480	4,844	2,712	22,885	12,914	35,800
1974	12,187	5,799	5,312	2,899	26,197	14,363	40,561
1975	14,533	6,198	5,621	3,044	29,396	15,764	45,161
1976	16,881	6,828	6,075	3,311	33,095	17,258	50,352
1977	19,640	8,150	6,994	3,613	38,397	19,556	57,953
1978	22,686	9,698	7,717	3,747	43,848	21,712	65,560
1979	27,322	11,278	7,798	6,467	52,865	25,660	78,526
1980	33,208	11,991	7,924	7,021	60,144	27,801	87,945
1981	40,254	12,136	7,610	7,965	67,965	29,291	97,255
1982	43,859	11,898	7,673	8,282	71,712	29,527	101,238
1983	44,923	11,834	8,498	8,626	73,881	29,847	103,727
1984	45,236	11,588	9,304	9,148	75,276	27,634	102,911
1985P	41,689	11,009	10,262	9,867	72,827	25,915	98,742
<u>Percent change in year</u>							
1972	15.1	1.7	13.8	8.7	10.3	11.3	9.2
1973	20.6	5.9	14.1	6.5	13.7	11.2	12.8
1974	23.7	5.8	9.7	6.9	14.5	9.8	13.3
1975	19.3	6.9	5.8	5.0	12.2	9.5	11.3
1976	16.2	10.2	8.1	8.7	12.6	13.3	11.5
1977	16.3	19.4	15.1	9.1	16.0	11.0	15.1
1978	15.5	19.0	10.3	3.7	14.2	18.2	13.1
1979	20.4	16.3	1.0	72.6	20.6	8.3	19.8
1980	21.5	6.3	1.6	8.6	13.8	5.4	12.0
1981	31.2	1.2	-4.0	11.8	13.0	.8	10.6
1982	9.0	-2.0	.8	4.0	5.5	1.1	4.1
1983	2.4	-.5	10.8	4.2	3.0	7.4	2.5
1984	.7	-2.1	9.5	6.1	1.9	-8.2	-.8
1985P	-7.8	-5.0	10.3	7.9	-3.3	-6.2	-4.1
<u>Percentage distribution of debt</u>							
1972	25.7	16.3	13.4	8.0	63.4	36.6	100.0
1973	27.5	15.3	13.5	7.6	63.9	36.1	100.0
1974	30.1	14.3	13.1	7.2	64.6	35.3	100.0
1975	32.2	13.7	12.5	6.7	65.1	34.9	100.0
1976	33.4	13.6	12.1	6.6	65.7	34.3	100.0
1977	33.9	14.1	12.1	6.2	66.3	33.7	100.0
1978	34.6	14.8	11.8	5.7	66.9	33.1	100.0
1979	34.8	14.4	10.0	8.2	67.2	32.7	100.0
1980	37.8	13.6	8.9	8.0	68.4	32.7	100.0
1981	41.4	12.5	7.8	8.2	69.9	30.1	100.0
1982	43.3	11.8	7.6	8.1	70.8	29.2	100.0
1983	43.3	11.4	8.2	8.3	71.2	28.8	100.0
1984	44.0	11.3	9.0	8.9	73.2	26.8	100.0
1985P	42.2	11.1	10.4	10.1	73.8	26.2	100.0

P = preliminary.

Appendix table 4.--Non-real estate farm debt excluding households, December 31

Year	Debt owed to reporting institutions (excluding CCC)					Total	Individuals and others	Total excluding CCC loans	CCC price support and storage loans	Total including CCC loans
	All operating banks	Production credit assoc.	Federal intermediate credit banks	Farmers						
				Home Administration						
Million dollars										
1972	13,528	6,343	251	686	20,808	5,891	26,699	1,793	28,492	
1973	16,223	7,516	331	772	24,842	6,728	31,570	750	32,320	
1974	17,235	9,150	374	919	27,678	7,398	35,076	319	35,394	
1975	19,051	10,339	350	1,560	31,300	8,382	39,682	375	40,057	
1976	22,002	11,759	368	1,652	35,781	9,789	45,570	1,040	46,610	
1977	24,295	12,978	374	2,764	40,411	11,999	52,410	4,540	56,950	
1978	26,718	14,369	509	5,087	46,683	14,011	60,694	5,666	66,360	
1979	29,327	17,388	665	7,905	55,285	16,278	71,563	5,070	76,633	
1980	29,989	18,939	810	10,346	60,084	17,367	77,451	4,978	82,429	
1981	31,301	20,355	913	12,718	65,287	18,404	83,691	8,011	91,702	
1982	34,341	19,653	871	12,988	67,853	19,139	86,992	15,433	102,425	
1983	37,113	18,543	850	12,888	69,394	18,566	87,960	10,801	98,761	
1984P	37,755	17,208	875	13,773	69,611	17,640	87,251	8,719	95,970	
1985F	35,485	14,878	646	15,865	66,874	16,925	83,799	16,100	99,899	
Percent change in year										
1972	14.5	8.7	8.4	1.2	12.1	8.7	11.3	-20.7	8.	
1973	19.9	18.5	22.4	12.5	19.4	14.2	18.2	-58.2	13.	
1974	6.2	21.7	13.0	19.0	11.4	10.0	11.1	-57.5	9.	
1975	10.5	23.9	-6.4	69.7	13.1	13.3	13.1	14.9	13.	
1976	15.5	3.7	5.1	5.9	14.3	16.8	14.8	177.3	16.	
1977	10.4	10.4	1.6	67.3	12.9	22.6	15.0	336.5	22.	
1978	10.0	10.7	36.1	84.0	15.5	16.8	15.8	24.8	16.	
1979	9.8	21.0	30.6	55.4	18.4	16.2	17.9	-10.5	15.	
1980	2.3	8.9	21.8	8.7	8.7	6.7	8.2	-1.8	7.	
1981	4.4	7.5	12.7	3.9	8.7	6.0	8.1	60.9	11.	
1982	9.7	-3.4	-4.6	2.3	3.9	4.0	3.9	92.6	11.	
1983	8.1	-5.6	-2.4	.3	2.3	-3.0	1.1	-30.0	-3.	
1984P	1.7	-7.2	2.9	6.9	.3	-5.0	-8	-19.3	-2.	
1985F	-6.0	-13.5	-26.2	15.2	-3.9	-4.1	-4.0	84.7	4.	
Percentage distribution of debt										
1972	47.5	22.2	.9	2.4	73.0	20.7	93.7	6.3	100.	
1973	50.2	23.2	1.0	2.5	76.9	20.8	97.7	2.3	100.	
1974	48.7	25.9	1.1	2.6	78.3	20.8	99.1	.9	100.	
1975	47.6	25.8	.9	3.9	78.2	20.9	99.1	.9	100.	
1976	47.2	25.2	.8	3.5	76.7	21.0	97.7	2.3	100.	
1977	42.7	22.8	.7	4.8	71.0	21.0	92.0	8.0	100.	
1978	40.3	21.7	.8	7.7	70.3	21.1	91.5	8.5	100.	
1979	38.3	22.7	.9	10.3	72.1	21.2	93.4	6.6	100.	
1980	36.4	23.0	1.0	12.6	72.9	21.1	94.0	6.0	100.	
1981	34.1	22.2	1.0	13.9	71.2	20.1	91.3	8.7	100.	
1982	33.5	19.2	.9	12.7	66.2	18.7	84.9	15.1	100.	
1983	37.6	18.8	.9	13.1	70.3	18.8	89.1	10.9	100.	
1984P	39.3	17.9	.9	14.4	72.5	18.4	90.9	9.1	100.	
1985F	35.5	14.9	.6	15.9	66.9	16.9	83.9	16.1	100.	

P = preliminary. F = forecast.

Appendix table 5.—Selected interest rates, 1960-85 1/

Year	Prime rate charged by banks 2/	3-month Treasury bills 3/	Federal land banks 4/	Real estate Life Insur. companies 5/	FmHA 6/ Ave. on farm real estate 7/	Commercial banks, non-real estate loans 8/	Production 9/ credit associations	Non-real estate FmHA 10/ Ave. on farm non-real estate debt 11/	Ave. on total farm debt 12/
									Percent
1960	4.82	2.93	6.00	5.0	5.00	NA	7.25	5.00	5.29
1965	4.54	3.95	5.60	5.5	5.00	NA	6.58	5.00	5.43
1970	8.00	6.46	8.68	9.31	5.00	8.32	9.45	6.88	6.29
1975	8.25	5.84	8.69	10.03	5.00	9.03	9.11	8.63	7.36
1980:									
I	15.06	11.51	10.39	13.21	11.05	15.2	12.74	11.00	9.33
II	15.25	NA	9.87	12.47	10.29	14.1	12.07	10.64	NA
III	19.50	NA	10.78	14.24	11.73	17.4	13.65	12.01	NA
IV	12.00	NA	10.52	12.58	11.00	13.5	13.25	10.50	NA
	13.50	NA	10.37	13.56	11.16	15.5	11.99	10.83	NA
1981:									
I	19.62	14.03	11.27	15.42	13.00	18.5	14.46	14.04	10.33
II	21.50	NA	10.76	14.06	12.25	17.9	12.90	13.00	NA
III	17.50	NA	10.99	14.91	13.33	17.9	14.19	14.15	NA
IV	20.00	NA	11.51	16.23	13.25	19.6	15.04	14.50	NA
	19.50	NA	11.83	16.48	13.25	18.8	15.71	14.50	NA
1982:									
I	15.56	10.69	12.27	15.51	12.94	16.7	14.58	13.73	10.41
II	15.75	NA	12.17	16.36	13.25	17.7	15.26	14.33	NA
III	16.50	NA	12.28	16.21	13.25	17.8	14.84	14.25	NA
IV	16.50	NA	12.35	15.99	13.25	16.8	14.42	14.25	NA
	13.50	NA	12.29	13.46	12.01	14.8	13.80	12.09	NA
1983:									
I	10.88	8.63	11.63	12.47	10.79	13.5	11.95	10.31	9.89
II	11.50	NA	11.90	12.93	10.89	13.8	12.83	10.47	NA
III	10.50	NA	11.70	12.30	10.75	13.2	11.77	10.25	NA
IV	10.50	NA	11.49	12.08	10.75	13.6	11.37	10.25	NA
	11.00	NA	11.44	12.55	10.75	13.6	11.82	10.25	NA
1984:									
I	12.06	9.59	11.76	13.49	10.75	14.1	12.47	10.25	9.86
II	11.00	NA	11.50	13.04	10.75	13.5	12.05	10.25	NA
III	11.50	NA	11.62	13.56	10.75	14.2	12.10	10.25	NA
IV	13.00	NA	11.79	13.71	10.75	14.8	12.61	10.25	NA
	12.75	NA	12.14	13.65	10.75	14.2	13.10	10.25	NA
1985:									
I	9.93	MA	12.24	NA	10.75	12.8	12.40	10.25	NA
II	10.54	8.18	12.14	12.88	10.75	13.2	12.91	10.25	NA
III	10.20	7.46	12.19	12.88	10.75	13.0	12.50	10.25	NA
IV	9.50	7.11	12.38	11.02	10.75	12.5	12.16	10.25	NA
	9.50	NA	NA	NA	10.75	12.5	12.03	10.25	NA

NA = Not available. 1/ For historic data see Agricultural Finance Statistics, USDA, ERS, 1960-83. 2/ Source: Agricultural Finance Databook Monthly Series, Board of Governors of the Federal Reserve System. 3/ Source: Economic Report of the President, Council of Economic Advisors. 4/ Source: Farm Credit Administration. 5/ Estimated by ERS from data obtained in a quarterly life insurance company survey. 6/ FmHA ownership loan rates are weighted by length of time each of various rates are in effect during quarters. 7/ Computed from data in Economic Indicators of the Farm Sector, National Financial Summary, USDA, ERS, 1984. 8/ Source: Agricultural Finance Databook--Quarterly Series, Board of Governors of the Federal Reserve System and Emanuel Meltcher, "Farm Financial Experience and Agricultural Banking Experience: Banking Data Through the Third Quarter, 1985," Board of Governors of the Federal Reserve System. 9/ Source: Farm Credit Administration. 10/ FmHA operating loans, rates weight length of time each of various rates are in effect during quarter. 11/ Computed from data in Economic Indicators of the Farm Sector, National Financial Summary, USDA, ERS, 1984. 12/ Computed from data in Economic Indicators of the Farm Sector, National Financial Summary, USDA, ERS, 1984.

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